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## 🔧 **R&D in Shipping** Priorities & Concerns

🎤 An open discussion with:  
**Evangelos Kyriazopoulos**  
**Cleopatra Doumbia-Henry**  
**Julie Lymberopulos**  
**Paddy Rodgers**  
**Leonidas Polemis**  
**Mark Pearson**

## 🔧 **Ship Inspections** Lessons Learned during the Covid-19 pandemic

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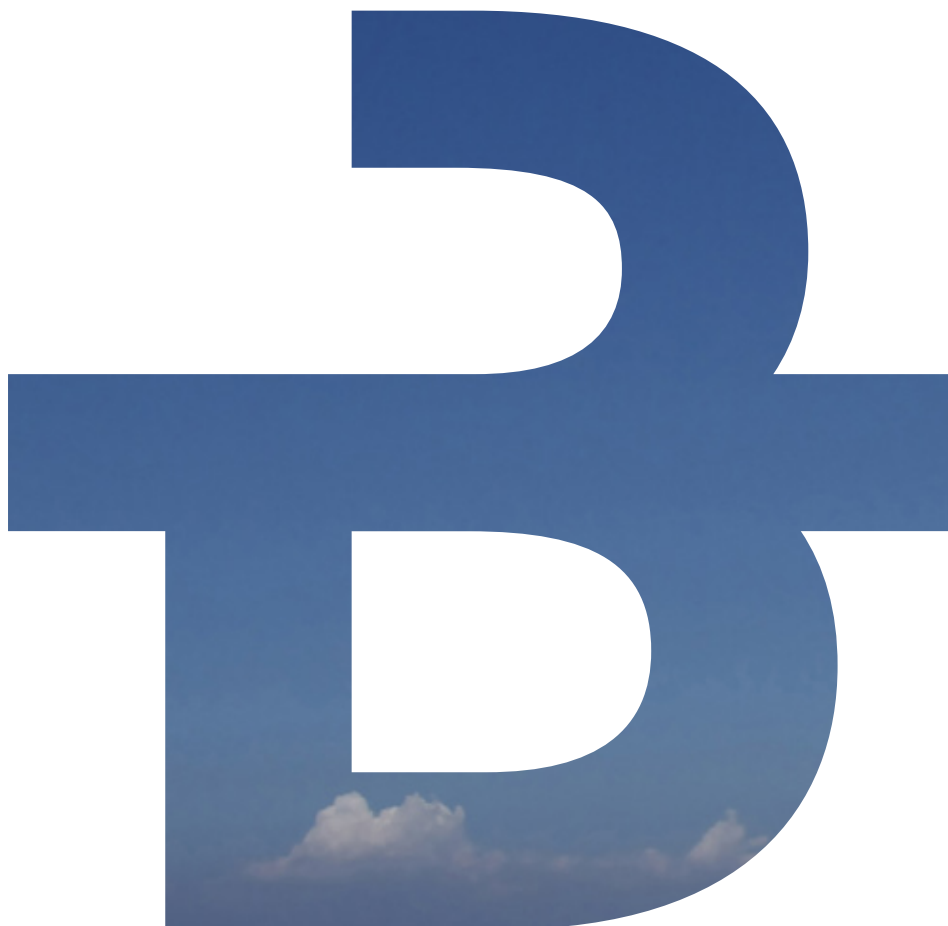
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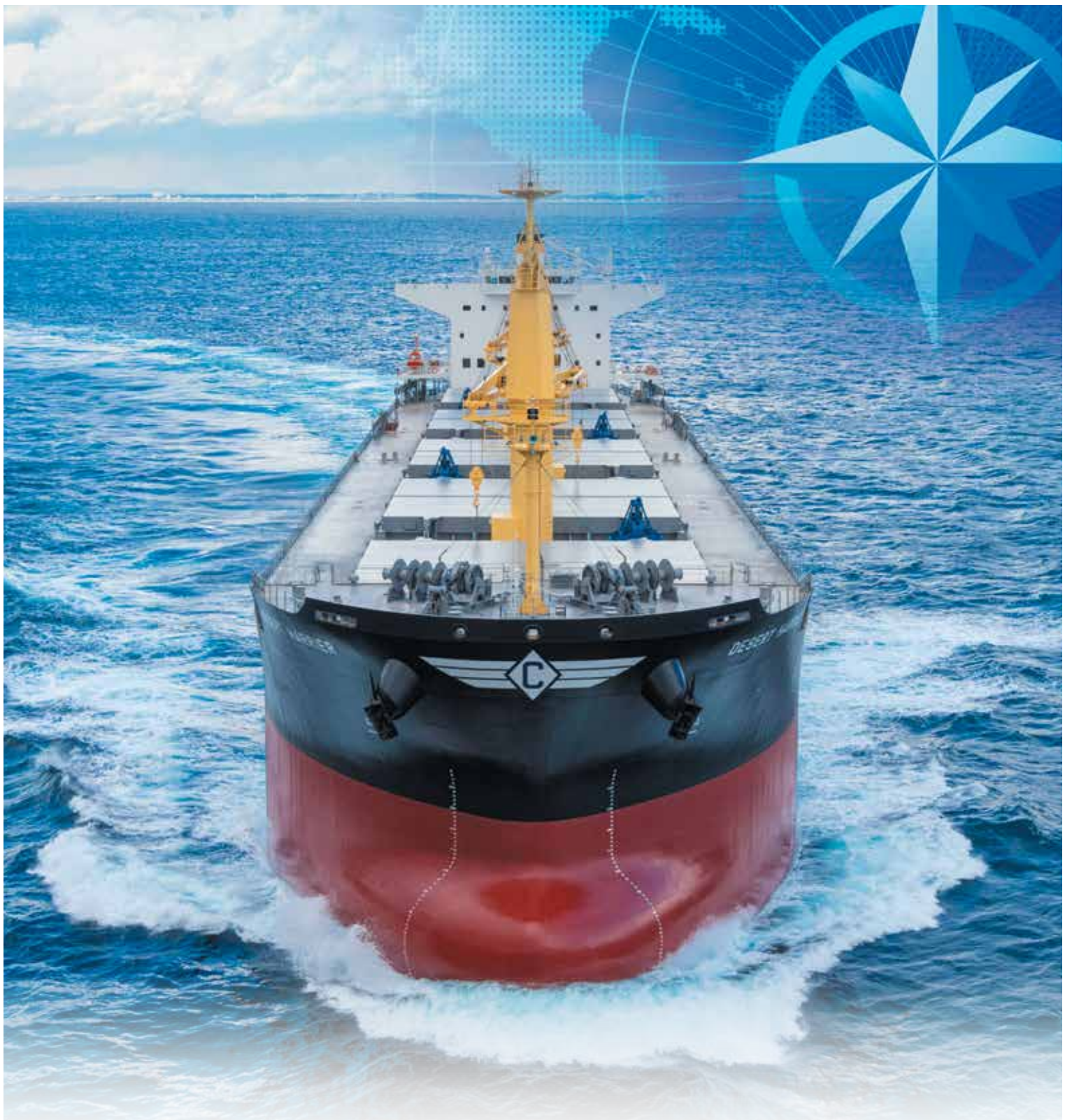
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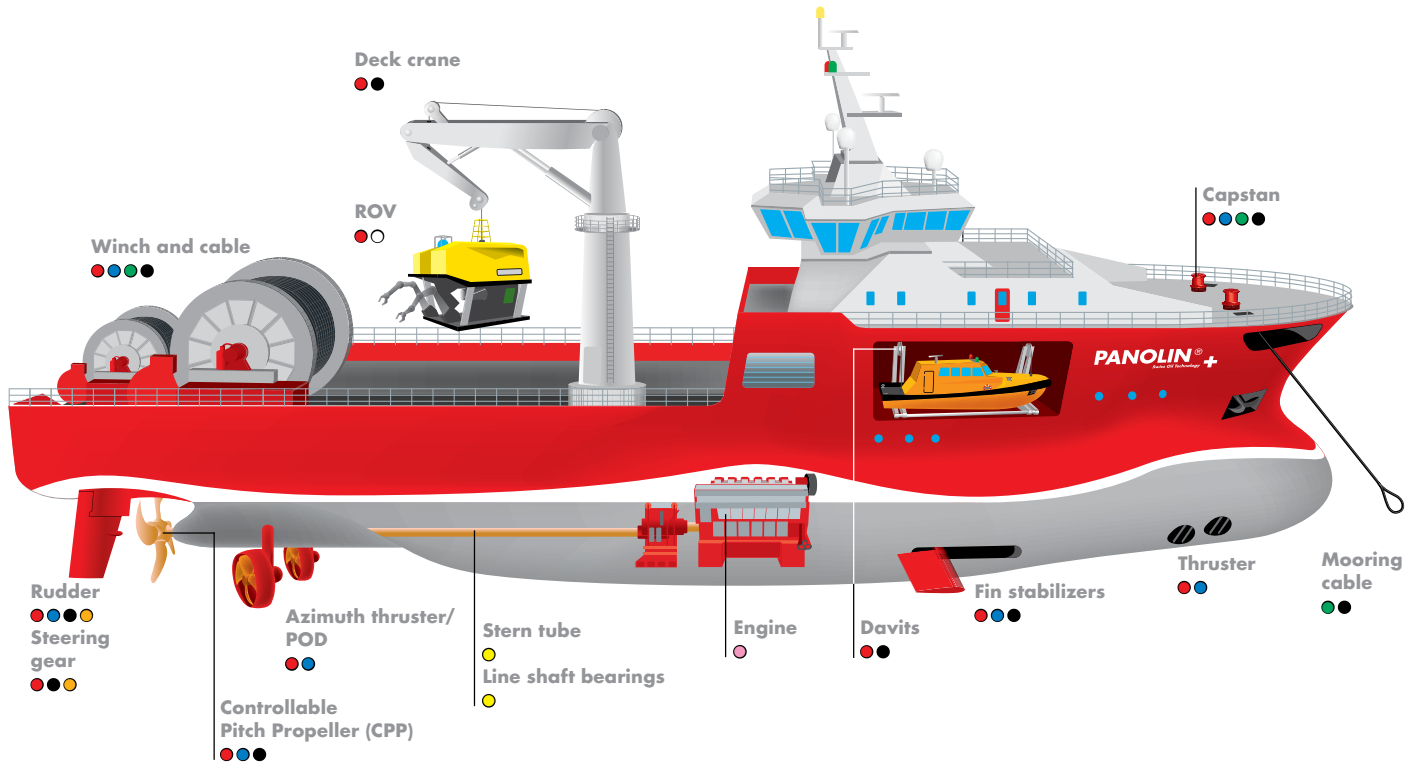
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# Did the IMO fail the shipping industry with its latest GHG proposed regulation?

## Yes, but not due to a “lack of ambition”.



by **Panos Zachariadis**,  
Technical Director, Atlantic Bulk Carriers Ltd.

On 19-23 October 2020, the MEPC working group convened remotely to work on proposals for GHG reduction from shipping, ahead of the full MEPC 75 committee meeting to be held November 16-20.

At last MEPC there was wide agreement that EEXI will be applied, which amounts to a power

limiter for all existing ships to bring them to the same design efficiency level as EEDI phase 2. That practically limits the operational speed of older ships, which have higher fuel consumption (and thus higher emissions), in a much more sensible way than a global speed limit. At that MEPC meeting there was a competing proposal supported by North European countries to regulate, what they called, the operational efficiency of ships, as expressed by an operational index such as EEOI or AER. These indices calculate the CO<sub>2</sub> emitted (which is fuel consumption x about 3.14) per ton-mile travelled. The EEOI uses actual cargo loaded for the ton figure whereas AER uses the dead-weight capacity.



The proponents of this alternative to EEXI proposal suggested that average indices should be established for each size and type of ship (the so-called baselines) and then the actual achieved annual index of each ship should be calculated. If the actual index falls below the average line then the ship is considered to have good operational efficiency and vice versa. Furthermore, the proposal included the progressive lowering of the baseline over the years (so ships must try harder to keep below it) along with various “penalties” for ships that cannot achieve it. One related proposal was that each ship should better its index by 2-3 % each year.

And then, the proponents of this option, led by Denmark, Germany and France, made a presentation at one of the breaks of the MEPC meeting, of a study that the Technical University of Denmark undertook about the factors influencing these indices (EEOI an AER)<sup>1</sup>. The presentation was revealing and totally against the interests

of the proponents. It showed in no uncertain terms that these indices are practically random. It explicitly said the average values of an index that varies from 5.9 to 21.3 gCO<sub>2</sub>/tm for the same ship, in similar annual voyages, makes no sense. It explicitly said these indices have too wide variations to convey any meaningful message regarding energy efficiency, they cannot be used for benchmarking (and thus should not be used in regulation), etc-etc.

After that presentation, the vast majority of members of MEPC voted to go for EEXI, rejecting this proposal. And then something unusual happened. The Chairman of the meeting, reportedly in order to achieve maximum consensus for the measure that goes forward, advised both sides to try to combine elements of the rejected proposal into the EEXI proposal. And indeed there were some elements that could have enhanced the EEXI regulation, such as a mandatory SEEMP, audited annually, demonstrating continuous

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1. Monitoring the Carbon Footprint of Dry Bulk Shipping in the EU: An Early Assessment of the MRV Regulation. G. Panagakos et al, DTU, September 9, 2019.



improvement based on indices or KPI's that each company would set as most appropriate for their ships.

But then the EU went into action imposing the views of the northern members to all of its constituency during the Brussels pre-IMO meetings. At the same time, it incorporated the Chinese idea to put an environmental rating grade on each ship (A,B,C,D and E) making China a powerful ally. China pulled in its usual IMO followers, most Latin America countries and several African countries. Japan went along to protect its idea, the EEXI. The discredited indices EEOI and AER were renamed as Carbon Intensity Indicators (CII) and –presto- a joint proposal from many states was presented to the working group, combining EEXI and CII, becoming the “base document” to be discussed by the working group in mid October. With knowledgeable members (like Greece and Cyprus) muted by the European Union, the discussion at the working group did not so much center around how you will get a reliable CII to even have some little relation to a ship's actual efficiency but what to do with the “bad” ships that score low, below the average (grades D and E). The hard-line members like Germany and Denmark along with the activist green organizations were pushing for drastic penalties i.e. to take their certificates away (practically scrapping these ships) after the second or third year. One surprising thing was the identity crisis of the big flag of Marshall Islands, which took the position of the hardest activists (because climate change threatens the country) in effect promoting a large reduction in the MI-flagged fleet.

The final draft that came out of the working group, to be further discussed and approved at MEPC 75 in November, finally did not include banning of ships to trade further but instead to come up with a “corrective” plan to raise their CII next year. This enraged the green activists along with Germany and Denmark, who claimed in several news organizations that the new proposed regulation did not have a “high level of ambition”. We must admit that the PR noise of the green organizations has reached new levels since many major news outlets reported on the workings of this IMO working group and how it failed to deliver in accordance with IMO GHG reduction targets due to the proposed regulation's “lack of ambition”.

But the whole CII part of the regulation is indeed disappointing to say the least. Not because it lacks ambition but because it imposes a very bureaucratic regulation on shipping, resulting in ship

rating grades that are practically as random as dice throws. And of course, because of such randomness and, thus, irrelevance to efficiency, the regulation will not result in any GHG reductions. CII's such as EEOI or AER are useful when applied to large numbers of ships or large fleets (e.g. the VLCC fleet or the Panamax bulk carrier fleet). They give an indication of whether shipping's emissions in segments of the total fleet increase or decrease. But as the DTU study showed (and many others before it) when applied to individual ships they show nothing with regard to a ship's energy efficiency. They are influenced by factors outside the operator's control (e.g. weather). So, for any given year, it's mostly a chance toss up if a ship will be quite below the fleet average (grade A) or quite above (grade E). Whatever the grade it doesn't convey the true efficiency of the ship. And that is why the regulation is disappointing; it regulates ships, based on chance, with huge bureaucracy (count your fuel, miles very trip, times of arrival/ departure from berths and anchorages, send all this info to class for verification, etc.), and huge trading repercussions (charterers preferring A and B ships) while not reducing GHG emissions one bit. Denmark, having presented the Study that proves CII's are totally unreliable efficiency indicators, discovered a smart counter argument: “Oh that's because we don't regulate them yet; when we do all owners will ensure they do better”. Of course! Everyone knows that when you penalize the small numbers on dice throws, you get many more fives and sixes!

There are a few things yet to be determined by MEPC 75 in the regulation such as how much will be the annual drop of the baseline and what exactly will be the CII (guidelines will be drawn up but most probably it will be AER). The regulation will enter into force in January 2023. (At the time of this writing the MEPC 75 results are not known but they are not expected to produce substantive changes – although the news PR of the green organizations is intended to apply pressure to IMO for “increased levels of ambition” i.e. scrap the unlucky ships and reduce the baseline yearly by large amounts.)

But most importantly, this regulation will have other serious repercussions for shipping. A baseline and rating system based on an index is exactly the mechanism of ETS. The mechanism will now be an IMO regulation. The proponents of Levy have lost a major battle. It is a wonder how they didn't read through it while supporting it and how easily they let the European Union progress toward its ultimate goal, which is a global ETS for shipping.



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# On the seafront

This month's top news  
from [naftikachronika.gr](http://naftikachronika.gr)



## The new Biden era: how have world leaders reacted so far?

Around the world leaders of allies and rivals of the USA have all held their breath during a somewhat unprecedented election campaign and vote counting process in early November. Issues such as climate change, foreign relations, international trade and humanitarian action are of major concern to many key analysts around the world, who expect a fundamental shift in these policy areas from the new government and administration in Washington next year.

In an interview to a local news network, the Iranian Foreign Ministry spokesman however stated that "The new American administration must stop the economic war against Iran after admitting to Washington's past mistakes", adding that "The difference between Biden and Trump is obvious, but we are waiting for prac-

tical steps to be taken". Iran's Foreign Minister Mohammad Javad Zarif also commented in one of his tweets on the US elections admitting that the Islamic Republic was ready to resolve most differences with Washington through dialogue: "A sincere message to our neighbors: Trump's gone in 70 days. But we'll remain here forever. Betting on outsiders to provide security is never a good gamble. We extend our hand to our neighbors for dialogue to resolve differences. Only together can we build a better future for all,"

Venezuelan president Nicolas Maduro was one of the very first leaders to congratulate Joe Biden on Sunday 8 November, admitting the tense relation between the two countries yet declaring in a public speech on national television that Caracas is open to a political dialogue with Washington. President Maduro added that "In time,... we will work, hopefully, to resume decent, sincere, direct channels of dialogue between the future government of Joe Biden".

Edited by:

**Giannis Theodoropoulos,**  
**Michalis Nikolaou**





In other parts of the world, former strong allies of the Trump administration were eager to show their commitment to a healthy diplomatic relation with Washington. Israeli Prime Minister Benjamin Netanyahu congratulated Biden and Harris, saying via Twitter, "Joe, we've had a long & warm personal relationship for nearly 40 years, and I know you as a great friend of Israel. I look forward to working with both of you to further strengthen the special alliance between the U.S. and Israel." Despite Netanyahu's strong ties with the Trump administration, commentators believe that Jerusalem will have to work closely with Washington, no matter what.

The Royal Family of Saudi Arabia also congratulated Joe Biden over his victory in the United States presidential election, but only 24 hours after the AP had stated that the Democrats had won the race. As most news agencies reported, Crown Prince Mohammed bin Salman had managed to secure very personal and close ties with the Trump administration causing the disapproval of many other leaders in the Middle East and Human Rights NGOs. Nevertheless, Joe Biden has pledged in his campaigns to formally reexamine diplomatic and commercial ties with the kingdom, demanding more openness over Riyadh's foreign policies and calling for an end to the Yemen war. Indian PM Narendra Modi, also very close to the Trump administration, congratulated Joe Biden and addressed Harris' Indian heritage with a more

personal comment: "Your success is pathbreaking, and a matter of immense pride not just for your relatives, but also for all Indian-Americans."

Most other foreign leaders sending out their public statements and or congratulations were even more optimistic for the future of their country's relations with Washington.

EC President Ursula von der Leyen stated in a recorded video message that the US and EU were "friends and allies" and reminded all that the US presidential election was a "moment of significance also on this side of the Atlantic". Von der Leyen congratulated both Joe Biden and Vice President-elect Kamala Harris and said she looked forward to working with them on "pressing global challenges" such as the pandemic, climate change, digital regulation and global security.

French President Emmanuel Macron posted on twitter that "We have a lot to do to overcome today's challenges. Let's work together!"

Relations with the Trump administration were extremely fragile, if not tense, during the previous presidential term. France under the Macron Presidency was, and still is, keen for Europe to move away both from its reliance on the US defence shield and from American trade paternalism in general. It is not surprising that Paris Mayor Anne Hidalgo reacted more strongly to Biden's win by tweeting "Welcome back America".

Angela Merkel on her statement was as expected, more restrained in her public comments declaring that she looked forward to working with President Biden. "Our trans-Atlantic friendship is indispensable if we are to deal with the major challenges of our time," she added.

Conspicuously absent from public statements of congratulations to the newly elected President of the US were until November the 10th, Russia's Vladimir Putin, China's Xi Jinping, and Brazilian President Jair Bolsonaro.

#### **Environmental policy and shipping: EU makes its intentions clear**

The European Council reached an agreement on a partial general approach on the European climate law. Its aim is to legislate the objective of a climate-neutral EU by 2050, which was endorsed by the European Council in December 2019.

The Council agreed that the Union-wide 2050 climate-neutrality objective should be pursued by all member states collectively. It stressed the importance of promoting both fairness and solidarity among member states and cost-effectiveness in achieving the climate neutrality objective.

#### *EU biodiversity strategy for 2030*

Environment and climate ministers adopted conclusions on biodiversity, endorsing the objectives of the EU biodiversity strategy for 2030, which aims at setting biodiversity on the path to recovery. Member states are deeply concerned about the global rate of biodiversity loss and recognise the need to step up efforts by addressing the direct and indirect drivers impacting the ecosystem, such as overexploitation of natural resources, climate change, pollution, invasive alien species, and the way we use land and sea. Member states reiterate the call for the full integration of biodiversity objectives into other sectors such as agriculture, fisheries, and forestry and the coherent implementation of EU measures in these fields.

#### *Other issues*

The Polish delegation presented its proposal for improvements to the EU emissions trading system to drive the transformation towards climate neutrality in the EU.

Finally, the European Commission published communications on the EU chemicals strategy for sustainability, the access to justice in environmental matters in member states, its current legislative proposal for a regulation amending the Aarhus regulation, as well as its decision on the 8th environment action programme to ministers.

#### **Oil: what does the World Bank foresee?**

According to the World Bank's latest report, metal and agricultural commodities have recovered from the effects of Covid-19 and are expected to make modest gains in 2021. However, the same cannot be said for oil, which despite some recovery, is not expected to return to pre-pandemic levels prior to 2022.

The World Bank forecasts that oil demand is set to remain low in all countries worldwide, except China, a fact that is expected to keep oil prices at around \$44 per barrel in 2021.

Even though \$44 per barrel constitutes a more optimistic review of the World Bank's previous estimation of \$41 per barrel for next year, the current estimations are still way lower than the 2019 oil price, which stood at \$60 per barrel. What is more, crude oil stocks are expected to rise due to the weak demand.

It should also be noted that even though OPEC+ intends to proceed with further production cuts in an effort to mitigate the pandemic's effects on global oil demand, the sudden re-emergence of Libya in the oil market is sure to put further pressure on a market that is already characterized by low demand. On the other hand, estimations regarding the price of natural gas are far more optimistic. The World Bank predicts that prices will increase proportionately to the global economic recovery.

#### **How will the China-Australia tiff affect dry bulk demand?**

According to a recent report by Drewry Maritime Research, the Chinese government has prohibited the import of Australian coal, which will be detrimental for dry bulk vessels as Chinese importers will shift from Australia to Indonesia and Mongolia, resulting in a decline in average haulage length and a loss in shipping demand.



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Deteriorating relations between Australia and China are now a major threat to the dry bulk market, which is already severely constrained by the ongoing pandemic, says Drewry. As per media reports, the Chinese government is prohibiting the discharge of coal cargoes sourced from Australia. About 93 million tonnes of coal are moved annually on the Australia-China route, accounting for about 2% of total dry bulk seaborne trade.

According to Drewry, seaborne trade of coking coal will decline because of China's inability to find an alternative for Australian coking coal in the short term and an increase in land-based imports from Mongolia in the medium-term. Effectively, it will wipe out about 120 billion tonne miles of coking coal trade annually. Similarly, suppose China replaces Australian non-coking coal with Indonesian supply. In that case, dry-bulk demand will decline by more than 80 billion tonne-miles even if import volume remains intact at the 2019 level. Overall, the ban will squeeze about 200 billion tonne-miles annually, equivalent to 1.0% of dry bulk tonne-mile demand in 2019. Although it constitutes only a 1% fall in overall dry bulk demand, the impact on the bigger bulk carriers such as Capesizes and Panamaxs will be more profound, concludes Drewry.

### The latest data for the Greek Merchant Fleet

The Hellenic Statistical Authority (ELSTAT) has published data on the Greek Merchant Fleet (for vessels of 100 GRT) for August 2020. Particularly: The Greek Merchant Fleet decreased by 2.1% in August 2020 compared with August 2019, while an increase of 1.3% was recorded in August 2019 compared with August 2018.

The gross tonnage of the Greek Merchant Fleet, for vessels of 100 GRT and over, recorded a decrease of 4.3% in August 2020 compared with August 2019. A decrease of 0.4% was recorded in August 2019 compared with August 2018.

### The Isalos.net & Real-Time Graduates webinar: The importance of giving priority to security

The digital event entitled "Safety First: Lessons Learned during 2020" was broadcasted live on Monday, 26 October. It was attended by experienced shipping industry executives who discussed the challenges faced by the shipping industry during the pandemic and the priority of security in the shipping industry. The discussion was organized by Isalos.net and Real-Time Graduates' initiatives for young people.

The speakers of the conference represented various shipping industry stakeholders:

Ms. Maja Markovčić Kostelac, Executive Director of EMSA, addressed the Greek public for the first time via a teleconference. At the same time, Mr. Andreas Hadjipetrou, Managing Director of Columbia Shipmanagement, Ms. Suzana Laskaridis, Founder of the Real-Time Graduates Initiative and Director of Laskaridis Shipping, Ms. Milena Pappas, Commercial Director of Star Bulk Carriers Corp. and Mr. Spyridon Tarasis, General Manager of Olympic Vision Maritime Company Inc & Vice-Chairman of INTERCARGO, presented the views of Greek shipping on the issues discussed. Dr. George Theocharidis, Professor of Maritime Law and Politics at the World Maritime University, focused on the legal issues resulting from the current crisis.

The event was coordinated by Ms. Paillette Palaologou, Vice President Marine & Offshore Division, HBSA Zone of Bureau Veritas. The discussion focused on the following issues:

**SAFETY FIRST: LESSONS LEARNED DURING 2020**

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### *The challenges in shipping during the pandemic*

Participants stressed that delays in crew changes led to the ostracism of crew members as they were not allowed to return home. This had serious implications, as crews did not have access to necessary supplies such as water and food. On the other hand, their psychological state worsened as they were away from their relatives. As characteristically mentioned during the discussion, many crews had no access to immediate medical care due to the restrictive measures implemented globally. However, several companies offered their seafarers moral support during this challenging period by providing them with internet access so they could keep in contact with company executives and their relatives. Many webinar participants expressed the view that it is essential that seafarers be identified as "key workers", as was the case with workers in other industries (e.g., hospitality).

Several speakers also referred to the absence of a specific international legal framework to address crew change issues. Participants pointed out that, due to coronavirus control measures, several countries often forget the vital role of shipping and seafarers.

Participants concluded that shipping companies have probably failed to effectively communicate shipping's pivotal role in global trade, to the general public. As a result, some countries ignore the importance of shipping and do not legislate to support the industry's real needs, and even more so, the needs of seafarers. Finally, they referred to the security challenges the industry will be facing in 2021, with Ms. Markovčić Kostelac pointing out that the first months, at least, will reflect the 2020 conditions. However, she seemed optimistic that shipping will have more options to meet these challenges.

### *Training seafarers to deal with the pandemic*

The shipping companies' representatives explained that adopting new technologies such as virtual reality enables seafarers and executives to adapt to the new conditions created by the pandemic. They also stressed that by now, most shipping companies have fully adapted to the new conditions and requirements that emerged from the pandemic crisis.

### **Oil cuts for 2021: Moscow leaves the door open**

Russian President Vladimir Putin announced the possibility of further OPEC+ oil production cuts in 2021. This is a very reassuring statement, especially during this particularly difficult period in which there are intense concerns that oil production will return to pre-pandemic levels prematurely and thus not reflect to real demand. A further positive sign for oil prices is that Russia,



which has repeatedly refused to fully adhere to OPEC+ production cuts, is now seriously considering further reducing the amount of oil it produces.

It is worth noting that Russia's hesitation to commit to the production cuts agreed by OPEC+ has led to a Saudi Arabia-U.S. oil war, as Moscow insisted that these oil production cuts allow the U.S. to increase its own oil production.

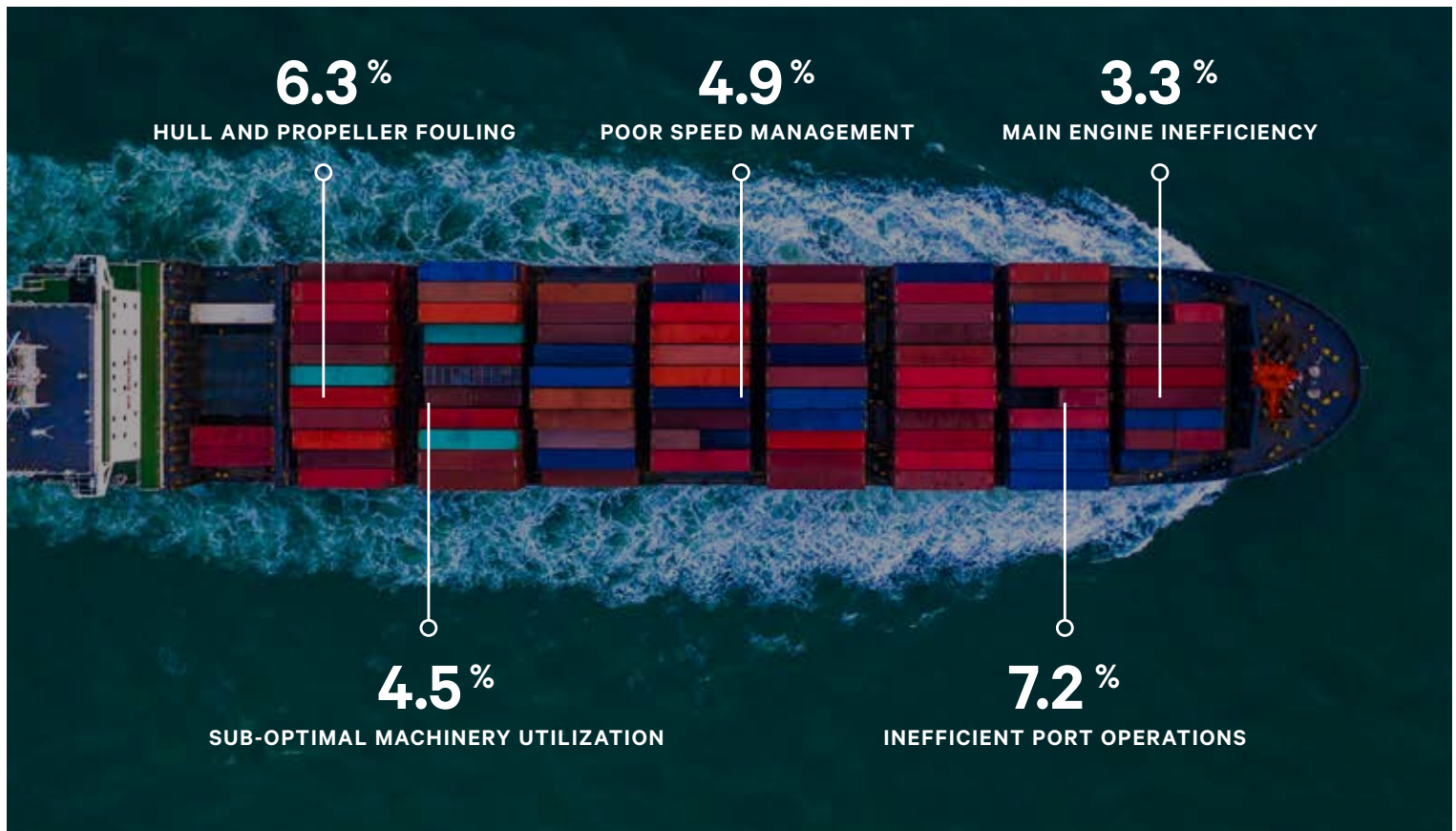
Concerning the future, the Russian President stated that at the moment, OPEC+ does not need to proceed with further production cuts since demand is already on the rise. Nevertheless, in these times of increased uncertainty, it seems Vladimir Putin does not completely rule out the idea of further reducing oil production in 2021.

### **Israel-UAE: The co-operation also extends to liner shipping**

Zim announced that it will now offer customers in Israel and the East Med direct service to Jebel Ali port in the UAE.

Two existing Zim lines will offer service to and from Jebel Ali port in the UAE:





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Zim India - East Med Express (ZIE) will offer service from Israel and the East Med to the UAE, and Zim Israel India Service (ZII) will accept cargo from Jebel Ali to Haifa.

"We are pleased to offer our customers direct service to and from the UAE, and look forward to future growth in this trade, as well as a further increase in the scope of our service portfolio," said Rani Ben Yehuda, Zim EVP Cross Suez and Atlantic BU.

#### **Libya: Historic ceasefire agreement will boost oil production**

Warring parties in Libya signed a ceasefire agreement on 23 October, according to a video posted on Facebook by the UN Support Mission in Libya (UNSMIL), showing the signing ceremony. The agreement was signed on the back of a five-day-long series of negotiations in Geneva, brokered by the UN.

"Libyan parties have reached an agreement on a permanent ceasefire throughout Libya. This achievement marks a major turning point for peace and stability in Libya," said the UNSMIL.

Due to the historic agreement, a commercial passenger plane flew from Tripoli to the eastern city of Benghazi after a one-year hiatus. Flights between Tripoli and Benghazi were halted in the summer of 2019 as bombings by Khalifa Haftar's Libyan National Army (LNA), based in eastern Libya, targeted Tripoli's Mitiga airport. Haftar's forces were repulsed from the capital in June.

It should also be noted that Libyan commander Haftar overturned his decision to block the country's oil terminals on 18 September. Since then, the Libyan state oil company (NOC) has, in turn, lifted the force majeure on Sharara, the country's largest oil field, which has a capacity of more than 300,000 barrels per day. According to Reuters, Sharara currently produces about 150,000 barrels of oil per day.

Regarding the recovery of oil demand, analysts seem to agree that Libya's sudden return to the global oil supply will become a problem. At the same time, OPEC+ has announced that it will continue to monitor the country's oil production.

#### **South Korea: Robots facilitate shipyard operations**

Daewoo Shipbuilding & Marine Engineering (DSME) has developed a new robot to support metalworking, including cold working and hot working processes.

Known as "Goknuri," the robot has the ability to shape metal in such a way, so that they can then be used to equip the bow and stern of ships built at DSME's main shipyard on the South Korean island of Geoje.

According to the South Korean shipyard, the robot can be successfully operated even by non-experts, as it utilizes standardized big data and artificial intelligence (AI) technology. It is expected to contribute to a better "modus operandi" for the shipyard and will also keep a record of workers' technical expertise and past performance. Furthermore, the robot's data can also be utilized for constructing more advanced and efficient ships in the future.

Workers who are subjected to loud noises and suffer from musculoskeletal problems are also expected to benefit from the robot, as it will assume their responsibilities, thus taking a significant burden off their shoulders.

"With this automation system, we aim to improve our work environment and our productivity at the same time," said a DSME representative.

#### **Saudi Aramco makes its ships greener**

The oil production and export units of the energy giant Saudi Aramco are cooperating with the American Bureau of Shipping (ABS) in order to receive the Enviro notation from the American classification society.

The certification serves as formal proof that Aramco's fleet of 23 ships are in line with the new environmental regulations. So far, Saudi Aramco has received the Enviro notation for seven of its ships, while the remaining 13 vessels are still undergoing inspections by ABS.

Abdullah Tewairqi, Marine Department Manager at Saudi Aramco, stated: "Obtaining the Enviro notation is a sign of our department's desire to go one step further than the basic alignment with environmental regulations," said Abdullah Tewairqi, Marine Department Manager at Saudi Aramco. Patrick Ryan, ABS SVP for global engineering and technology, added: "ABS is committed to supporting the industry in reaching its environmental objectives and the ABS Enviro suite of notations sends a strong message that environmental impact has been fully considered. The Enviro notation demonstrates both Saudi Aramco's and ABS' commitment to the Kingdom of Saudi Arabia's higher environmental standards, and we are proud to be able to support Saudi Aramco in achieving their vision for a fleet that is equipped for greener operations."



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### Greece's energy mix

The spectacular decline of lignite in the country's energy mix and the emergence of the first electricity supplier (WE Energy of the Eunice group) to supply its customers with energy derived exclusively from renewable sources are the main conclusions drawn from the RES Administrator & Guarantee of Origin (DAPEEP) reports on the origin of the energy consumed in the country in 2019.

The reports also include the origin of imported energy, which means that energy sources such as nuclear power and coal, which do not exist in the domestic production base, appear in the energy mix.

According to DAPEEP data, last year's energy mix consisted of 35% natural gas (from 30% in 2018), 19% lignite (compared to 30% last year), and 23% renewable sources (compared to 28% in 2018), always including the corresponding imports.

As can be seen from the above data, natural gas plays a significant role in the country's energy mix. Many projects are underway to increase this fuel's storage and transportation. In this context, the Hellenic Republic Asset Development Fund (HRDH SA) recently announced that three interested parties had submitted an Expression of Interest for the Award of a Concession Agreement for the use, development, and operation of "South Kavala," an almost depleted underground natural gas field, in order to convert it into a natural gas storage facility.

The companies that expressed interest are the following (in alphabetical order):

1. CHINA MACHINERY ENGINEERING CO. LTD. (CMEC) – MAISON GROUP
2. ENERGEAN OIL & GAS AEGEAN ENERGY SA, HYDROCARBON RESEARCH AND PRODUCTION
3. DESFA - GEK TERNA

The Fund's utilization consultants will evaluate the submitted Expressions of Interest and submit their proposal to the Board of Directors of HRDH regarding the candidates who meet the participation criteria for the next phase of the competition, that of the binding offers.

The concession will cover a period of up to 50 years after the licensing of the two projects of the underground natural gas storage facility (UNGFS). The concessionaire will carry out the conversion of the "South Kavala" underground natural gas field "South Kavala" into a UNGSF within a binding deadline, which will be specified in the concession contract.

The installation and operation of the UNGSF South Kavala will contribute, among other things, to strengthening the energy security of Greece and Southeastern Europe, the protection of consumer supply, and the fulfillment of the security-related obligations of electricity and gas suppliers.

### Shipping: One of the most valuable assets of the EU

Launched earlier in February during the 2020 European Shipping Week 2020, ECSA has produced a more comprehensive publication of the latest figures on European shipping by Oxford Economics.

"We are producing a more detailed version of this study, in view of the current challenges posed by the COVID-19 pandemic," said ECSA Secretary-General Martin Dorsman. "It helps us put into perspective the crucial role played by shipping in maintaining trade between Europe and

its partners and within the Single Market so that vital supplies such as food, medical equipment, building materials do not run out.”

Shipping has always been one of the most valuable assets of the EU, economically, socially, and culturally.

According to the latest information from 2018, European shipping directly contributed €54 billion to the EU's GDP. Taking into account the spillover effects onto other sectors such as supply chain and worker spending impacts, the total contribution stands at €149 billion. The industry directly employs 685,000 people, and it supports up to 2 million jobs when including the impact on other sectors.

In light of the European Green Deal and the industry's own ambition to decarbonise under the IMO's Initial Strategy on Reduction of GHG Emissions from Ships adopted in 2018, shipping is making steady progress towards these goals. At the same time, it is also facing unprecedented challenges brought forth by a downward global economic outlook and unfair competition from state-sponsorship in third countries.

“Nevertheless, we are determined to focus efforts on our climate ambitions and work with EU regulators to find the best way forward,” continued Mr. Dorsman. “European shipping is committed to decarbonise, at the same time keep safe and highly-skilled jobs in Europe, while maintaining its global competitiveness.”

#### **Eugenides Foundation: Further donations to the Health sector**

The Eugenides Foundation has once again offered its invaluable aid to the country's Health System. The Eugenides Foundation, with a high sense of solidarity and contribution, recently donated €63,000 to the Pathology Clinic of the “ATTIKON” General University Hospital.

The donation was used to purchase five units of Fresenius 5008S dialysis machines, produced by Mediprime+. The ultimate goal was to cover some of the needs of ATTIKON Hospital, which is one of the dedicated hospitals of reference for Covid-19. The donation will be used to set up two wards in which people suffering from kidney disorders suspected of being infected by the coronavirus can be subjected to dialysis treatment.

It should also be mentioned that in early September, the Eugenides Foundation also donated €162,890 for laboratory and medical equipment to the 7th Pulmonary Clinic of the “SOTIRIA” Hospital.



The donation went towards purchasing and installing a complete latest technology bronchoscopy system, customized for Covid-19 patients, equipped with a complete bronchoscopy tower, Series I endoscope washer-disinfector system, and safe storage for 8 endoscopes for the full control of infection.

In addition, the Foundation has fully equipped 10 rooms by donating 30 VIDA model hospital beds, mattresses, and 30 bedside tables to ensure the highest quality patient care.

In his statement, the President of the Eugenides Foundation, Mr. Leonidas Dimitriadis-Eugenides, thanked all the health professionals of “ATTIKON” and “SOTIRIA” Hospitals, who offer seamless services to patients in need with a high sense of responsibility.



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# Market stability and certainty about emission charges - an incentive for investing in R&D

Dr. Evangelos Kyriazopoulos,  
Secretary-General of the Ministry of Maritime Affairs and Insular Policy, talks to Ilias Bissias



In his interview with *Naftika Chronika*, Dr. Kyriazopoulos shares his views on the recent much-discussed integration of shipping into the EU Emissions Trading Scheme (ETS) and talks about the Ministry's future plans on port policy, short sea shipping, and the protection of the marine environment.



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*The enforcement of regional measures, which affect ship trade internationally, clearly questions the power and authority of a prestigious and well-accepted international organization like the IMO.*

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An intense, lively debate is underway in the international shipping community due to the European Commission's initiative to take action and include shipping emissions in the EU Emissions Trading System. Having a decisive role as Secretary-General of the Ministry of Maritime Affairs and Insular Policy, and taking into account the Greek shipping sector's global character, what are your views on this issue?

It could be argued that the whole undertaking is at stake due to the different approaches to reducing global ship emissions, as this situation is fuelling even further the uncertainty scenarios in the international shipping community about how this major issue will ultimately be addressed. Since 2013, the EU has been making a steady effort to reduce greenhouse gas emissions from the shipping industry by introducing the monitoring, reporting, and verification of CO<sub>2</sub> emissions from large ships using EU ports, setting reduction targets, and launching various market-based measures to mitigate ship-generated pollution. On the other hand, in 2018, the IMO announced its greenhouse gas strategy setting ambitious targets for reducing emissions by 2050, followed by an action plan to introduce short-term measures by 2023, whereby a revision of the strategy is foreseen, in order to incorporate the data already collected. However, the Commission took a dubi-

ous step forward in the same year by trying to amend the Emissions Trading System Directive (ETS) to include shipping emissions. In addition, the Commission went even further in terms of implementation, stating in the proposed amendment that active measures should be initiated by either the Commission or the IMO by 2023!

In its role as a global shipping regulator, following the adoption of the monitoring regulation by the EU, the IMO set in force its own data collection system in January 2019. The IMO action plan is on track. After the recent Plenary Session of the IMO Member States (October 2020), a short-term legislative package was agreed on, which is in line with the commitments of the Paris Agreement.

The truth is that various market players in the international shipping community believe that the EU's initiative to put forth a regional action plan affects or even undermines the IMO's approach, which is to tackle the issue at a global level. What are your thoughts on this issue?

I am inclined to agree with these statements. As it is easily understood, the enforcement of regional measures, which affect ship trade internationally, clearly questions the power and authority of a prestigious and well-accepted international organization like the IMO to deal





with it. After all, the way the ETS system was introduced in the transport system has faced considerable difficulties. The inclusion of the aviation sector in 2012, for example, led to strong political tensions on an international level in the beginning. In the absence of a global regulator, EU decided to include all carriers within the EU from 2017. Since then, it has been monitoring related developments at an international level (CORSIA), setting 2024 as the cornerstone year to decide how the measure will be implemented globally. Unfortunately, the figures show that applying the ETS to intra-EU flights did not result in the reduction of absolute emissions. Another example of a sector area that was not incorporated into the ETS system following a decision by the European Parliament was that of road transport, due to its complex character and the multiple actors involved in it.

As it can be reasonably assumed, the attempt to include shipping into the ETS when another global measure is being developed can dramatically affect the shipping market. Moreover, the will to include international shipping in a regional scheme may very well result in the postponement of a global response to the call for action to pursue sustainable development goals under UN's Agenda 2030, as many companies and operators may decide to avoid EU ports and boycott the EU's goal of reducing GHG globally.

What is the right mix of policies to meet global goals and effectively reduce the shipping sector's CO<sub>2</sub> emissions by 2050?

This is certainly not an easy question. The issue is delicate and requires a careful approach. Firstly, we are all aware of the chicken-egg dilemma regarding the decision to introduce emission-saving technologies in the shipping industry. I think that what the market needs is stability and certainty when it comes to emission charges so that it can start investing heavily in R&D and developing the required infrastructure to meet the 2050 goals.

Secondly, according to the World Bank report, it appears to be broadly accepted that applying a global fuel levy would be the most effective and efficient carbon pricing policy for the marine industry. If the international shipping community reached an agreement under the IMO's guidance on the said

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*The will to include international shipping in a regional scheme may very well result in the postponement of a global response to the call for action to pursue sustainable development goals under UN's Agenda 2030.*

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*Within the next months, the updated national ports strategy will be available for public consultation, providing guidance on all the required reforms in many interconnected and interacting fields.*

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market-based measure, it would accelerate raising funds to support innovative investments in the shipping sector and indeed provide a strong incentive for reducing global greenhouse gas emissions.

A major port exploitation plan kicked off last summer in Greece as part of its port development strategy. How is this plan evolving, and how are you coping with the challenges caused by the COVID-19 pandemic crisis?

Our plan has undoubtedly been affected by the pandemic crisis. Within a few months after the elections, we decisively addressed the port system policy by facilitating climate investments with quick and methodological steps. We approved the Piraeus Port master plan, de-freezing COSCO's investment plan, and expedited the Thessaloniki Port development plan by optimizing our administrative involvement.

At the same time, we reactivated the regional ports' exploitation process, in close cooperation with HRADF, which led to the initiation of the tender procedure for the ports of Igoumenitsa, Kavala, and Alexandroupolis last summer. This has resulted in strong competition, with the participation of well-known international market players willing to share our vision of having ports operate as engines of growth.

In addition, we are currently working on a ports' governance reform process to address the inefficiency of the national port system and deal with the structural and organizational issues that undermine regional economic development and affect the ports' operational and development planning.

At the same time, due to the pandemic crisis, we also had to solve two other demanding issues: to ensure public health in ports and on ships and connectivity to the islands with the required supportive measures. On the other hand, we had to address the vertical fall in the economic activity caused by the unprecedented drop in freight and passenger activity. We did that - with success, I believe - by undertaking appropriate measures, smoothing the multilevel impact on the shipping and port community, as well as for passengers and tourists.

Our plan is on the go. Within the next months, the updated national ports strategy will be available for public consultation, providing guidance on all the required reforms in many interconnected and interacting fields: modernization of the maritime freight and passenger transport system, maritime tourism and cruise, port logistics, maritime spatial planning, and shipbuilding repair.

I would like to conclude our discussion by going back to where we started. Fleet renewal in short sea shipping is definitely on every member state's agenda and one of the most critical challenges ahead to meet the 2030 and 2050 environmental targets to reduce greenhouse gas emissions. Are these targets also part of your action plan?

Among the European Green Deal goals is the mobilization of the industry for a greener and cleaner Europe by accelerating the transition to a more sustainable transport system. Our country supports EU's initiative, and our Ministry is taking concrete steps towards this direction.

In collaboration with the Hellenic Chamber of Shipping, we are exploring alternatives and incentives to finance short-sea companies to proceed with the renewal of their ferry fleets by 2030. Recognizing that the investment gap is several hundred million euros, we are considering creating a financial instrument that will attract the interest of national development banks and international financial institutions and facilitate the transition by mobilizing public resources and private sector funds.







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# The Maritime Industry and Generation Z

by Dr. Cleopatra Dombia-Henry,  
President World Maritime University

Shipping is a global industry that is indispensable to world trade. Since antiquity, Greece has been known as a maritime nation. Today, Greece continues to be a major global player in the maritime industry. The Greek fleet's total value has increased by over \$5 billion in one year<sup>1</sup>, which is the second-biggest increase in value for any of the top 10 shipping nations. The Greek-owned fleet's total asset value has topped \$100 billion, which is a significant milestone<sup>2</sup>.

Maritime activities are predominantly exercised by Greek citizens who also run shipowning and ship management companies of various sizes (i.e., family type small and medium-sized companies, and a global network of listed corporations). The maritime industry has experienced a variety of financial challenges due to globalization, including political instability, which traditionally causes market uncertainty. Recently, however, it has also been exposed to new types of challenges, including technological (e.g., automation and digitalisation), societal (e.g., work, employment, and education), and environmental (e.g., energy efficiency, and ocean governance) challenges. The most recent challenge is obviously the ongoing COVID-19 pandemic and its effects on all global economic sectors. At the same time, distortions that have not been contemplated seem to be accelerating and occurring on a more frequent basis. All of the above affect the shipping industry on a global scale and individual companies in particular.

The technological challenges, influenced by Industry 4.0 and the development of 5G and 6G technologies, are related to digitalisation and automation processes, including the introduction of maritime

autonomous surface ships and the development of digital shipping and logistics processes, which are enormously increasing the amount of data that accompanies all processes. This trend can be seen not just in the industry but in our individual lives as well.

Today, our daily activities tend to be connected to the digital world through personalised digital devices, such as mobile phones and laptop computers. Limitless connectivity introduced by digitalisation is likely to trigger a variety of societal challenges, impacting the nature of jobs, the work environment, employment possibilities, and career options. The World Maritime University's (2019) report on *Transport 2040: Automation, Technology, and Employment – The Future of Work*<sup>3</sup> highlights that a high degree of adaptability to technological developments is the key to resilience and success for maritime companies in terms of business operations and human resource management. It is noteworthy that the emerging challenges in the industry may be viewed and tackled differently by different generations.

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*Limitless connectivity introduced by digitalisation is likely to trigger a variety of societal challenges, impacting the nature of jobs, the work environment, employment possibilities, and career options.*

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1. See, <https://www.maritime-executive.com/article/top-10-shipowning-nations-china-sees-biggest-increase>

2. Ibid.

3. See, <https://www.wmu.se/scholarly-books/transport-2040-automation-technology-employment-the-future-of-work-2>



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*Much like the shipping industry in general, in its essence, Greek shipping prospered on “conservatism” and “tradition.” However, this approach may not allow for the kind of flexibility that facilitates cross-generational human resource adaptation that enables a business to thrive in the 21st century.*

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Relative to the generations before them, more recent generations are often perceived as having an almost natural affinity to digitalisation. This is particularly the case for Generation Z, largely understood as a reference to people born between 1995 and 2015. They have been referred to as digital natives surrounded by the internet, social networks, and mobile systems<sup>4</sup>. For them, traditional maritime knowledge and heritage are not just simple values but also something to be challenged. For many years, Greek maritime heritage and tradition have been well-maintained by family-oriented small to medium-sized companies. Much like the shipping industry in general, in its essence, Greek shipping prospered on “conservatism” and “tradition.” However, this approach may not allow for the kind of flexibility that facilitates cross-generational human resource adaptation that enables a business to thrive in the 21st century. This can present a number of potential challenges for small and medium-sized Greek maritime business owners.

Technological changes are expected to reshape the future of work in the sector and drive an underlying employment dynamic where traditional seagoing jobs may be replaced by higher value-added, onshore-based employment<sup>5</sup>. However, despite the challenges, transportation and the movement of goods and people will remain in demand by the global economy for the foreseeable future. As they evolve, companies need to maintain adaptability to situations, which includes adaptability to generational change.

Arising from the environments in which they have been nurtured, Generation Z individuals have different employment and career expectations. In relation to employment, and quite different from earlier generations, the following are indicative of the issues that arise from corporate engagement with this generation.

Firstly, this generation exhibits a relatively high degree of flexibility in terms of possibilities of professional conversion, meaning that after graduating from a certain educational programme, Generation Z can easily reorient themselves to another field if the initial one does not fit their plans for the future. Secondly, members of Generation Z seem to express their dissatisfaction more openly and tend to evidence greater courage, being better informed about their rights compared to previous generations. Individuals from this generation tend to have expectations of a speedy rise up organizational hierarchies and are not averse to changing employers quickly. The older generations tend to react with frustration to such expectations and behaviours. They find it hard to tolerate impatience, and in many cases, their reaction to adverse professional events and setbacks is acceptance. Finally, as the youngest generation in the labor market, the majority of whom have a maximum age of 25 years, they are the first to be exposed to the demands of the rapidly evolving nature of work, so adapting to this situation requires more effort on their part. On the other hand, they tend to bring to organisations an infusion of fresh ideas and views, which may be quite different from those of previous generations, and though sometimes this seems disruptive, it may be of significant benefit to the organisation.

It becomes apparent from the above that today the labor market is facing

4. Francis, T. and Hoefel, F. (2018). ‘True Gen’: Generation Z and its implications for companies. McKinsey & Company.

5. European Commission, Directorate-General for Mobility and Transport, D2 Maritime Safety (2020). Study on social aspects within the maritime transport sector. Final report. Luxembourg: Publications Office of the European Union.

a paradigm of intergenerational "coexistence.", which, while not new, presents a different challenge based on the nature of the specific generations in view. When not handled properly, inter-generational gaps can lead to conflicts or misunderstandings. For medium and large size maritime businesses, the issue has to be addressed from a motivation and human perspective, allowing the organisation to be more tolerant and considerate of the different motivations and developmental aspirations. Optimising solutions lie in the relationship between the company and its employees. If the latter feel that they are not merely numbers or cogs in a machine but are recognised as an integral part of the organisation with meaningful and appreciated contributions to make, then there are strong chances that a genuine bond will be forged. In many cases, this is achieved when the Generation Z employee has a chance to "know" the majority shareholder (e.g., they have interacted in a crisis situation in the company), or feel that the former is somehow "known" by the latter (e.g., a personal letter is addressed to the employee relating to a family problem). The existence of such a relationship will entail patience on the part of the employee regarding their advancement within the hierarchy and long-term commitment to the company's goals and objectives.

It is noteworthy that research has evidenced that the cooperation of different age groups could produce not only conflicts but also positive results for the organisation. Generation Z can bring significant advantages to an entity arising from their potential for quick adaptation to a volatile, uncertain, complex, and ambiguous world, and from their natural affinity to technological advancement<sup>6</sup>. Such abilities are bringing new possibilities to the maritime industry.

In all this, it is apparent that education plays a vital role in the transition from school life to a career as an employee. In particular, further and higher education have the potential to enhance the achievement of relevant and skills, knowledge, and mindsets needed to work and engage in the industry. Therefore, it is necessary to adapt educational environments so that all generations, Generation Z in particular, can productively use their talents and abilities, taking their individual characteristics and aspirations as advantages. In addition, a life-long learning perspective in the workplace is crucial. The education of the Generation Z needs to be adjusted considering the specific characteristics of their cognitive activity (i.e., average attention span, ability to process multilevel data using technology quickly, higher efficiency in a multitasking environment), values (i.e., relying on social networks more than family, independence <sup>7</sup>), needs (i.e., for individual support), psychological aspects (i.e., flexibility, creativity and relevance of learning <sup>8</sup>) and technical skills. It is necessary to develop a practicable educational environment that will enable them to succeed in future careers <sup>9</sup> by adopting not only teach-

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*Generation Z can bring significant advantages to an entity arising from their potential for quick adaptation to a volatile, uncertain, complex, and ambiguous world, and from their natural affinity to technological advancement.*

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6. European Commission, Directorate-General for Mobility and Transport, D2 Maritime Safety (2020). Study on social aspects within the maritime transport sector: Final report. Luxembourg: Publications Office of the European Union.

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*The cooperation of different age groups could produce not only conflicts but also positive results for an organisation.*

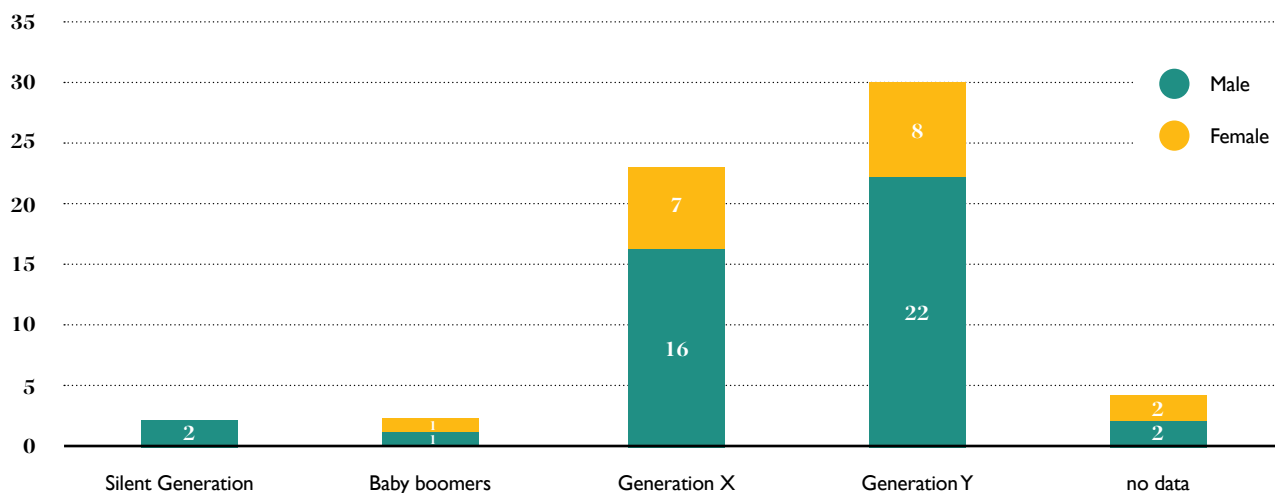
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ing and learning methods but also the style of communication between the actors of the educational process, the form of presentation of information, including the preparation of a new type of educational and methodical literature and active use of information and communication technologies.

These insights, among others, inform elements of WMU's work. The University is one of the few international higher education institutions specializing in maritime and ocean education, research, and capacity-building, and the only United Nations organization of this kind. WMU offers a range of degree or non-degree programmes, including Master of Science (MSc), Doctor of Philosophy (Ph.D.), Master of Philosophy (MPhil), Postgraduate Diploma (PgDip), Executive and Professional Development Courses (EPDCs), and other on-demand courses by using different means of education (i.e., flipped, blended, on-line, face-to-face, in situ, etc.) according to the needs of individuals and organizations. To date, WMU has reached 5,156 alumni from 170 countries, of which 61 were of Greek origin. Figure 1 shows the distribution of different generations among the Greek WMU alumni. Nearly half are categorized as Generation Y (born between 1981-1996) and 38% as Generation X (born between 1965-1980). Our current and future students are mostly Generation Z.

Our current and future students are mostly Generation Z. It is also worth mentioning that Dr. Efthymios E. Mitropoulos, who was the seventh Secretary-General of the International Maritime Organization (IMO) from 2004 to 2011, has been Chancellor of WMU and received an Honorary Doctorate from WMU in 2013. Therefore, a network of the Greek WMU family, including Dr. Mitropoulos, the alumni, faculty, and visiting professors, can be considered a good example of a cross-generational maritime expert community for Greece. This was possible only through education in the context of WMU, which offers not only knowledge but also a connection to the global maritime professional community within and beyond Greece. WMU, recognizing that education is key to bridging intergenerational and intercultural gaps, has consistently offered an educational context where all generations, genders, and nationalities/cultures interact and learn with and from each other, thus breaking the barriers that tend to arise naturally from such societal distinctions.

Figure 1: WMU MSc Malmö Greek alumni as of July 2020





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# Only technologies change, not people

Mr. Paddy Rodgers,

Director of U.K.'s Royal Museums Greenwich, talks to Ilias Bissias and Charis Pappas

Mr. Paddy Rodgers talks to *Naftika Chronika* about his vision for the future of the Museum, the interests and characteristics of Generation Z, the meaning of sustainability for a maritime museum, as well as the differences between running a multi-global company such as Euronav and a maritime museum.

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As Director of Royal Museums Greenwich, what has been your vision for leading the museum into the next stage of development?

As I come from the shipping industry, it is really important to me that we establish a good connection between contemporary shipping and current shipping challenges with history, so that history helps to guide us. Then we can understand who we are, we can understand how we think about our past, and this shapes the opportunities we allow ourselves to have in the future. So, it is very important to me that there is continuity and the museum has an important role to play in the life of modern shipping, not because it has the answers but because in the past we faced problems to which we did not know the answers, and yet we found them, so this can inspire us and perhaps guide us in how we might think about solutions.

Do young Britons show any interest in the country's maritime heritage? How can a Maritime Museum stimulate Generation Z's interest?

First of all, I think that Generation Z is a very curious generation. They spend a lot of time look-

ing at things, finding things out. They are used to getting information quickly. I don't think that they are uninterested. In 2019 we had nearly 3 million visitors. So, we have quite a big visitor population, and of course, it is probably primarily families, but it certainly includes a lot of young people. I don't think it's very common for young people between the ages of 16-25 to go to museums on their own, but if they come here, there is quite a lot for them to do and we also have a lot of events that encourage them to come here as well. Don't forget that our museum also includes the Royal Observatory, a great Art Gallery in the Queens House and a strong program of educational opportunities both within and outside of schools. This is a great resource for anyone of any age curious about the stars, the solar system, the universe, the sea, trade, migration, cultures, conflict reconciliation, and art. There is quite a nice balance of things that generation Z and people of all ages can do here.

Why are the younger generations not interested in history or their country's heritage?

I'm not sure that they're not. I think it's an interesting question to pose, but I think that life is pretty exciting for young people these days. There is quite



a lot to look forward to, and there is a lot that they are excited about. And maybe they are also a bit anxious about where society is, because it is a very strange time for them compared to ours. I am 60 this year, and when I was younger, we had some worries in the world, probably the biggest one being a nuclear war. However, I don't think that most of us worried about the future of our planet. We always thought that there were jobs and that everywhere we went, there was a requirement for more people. Most people could expect to live more comfortably than their parents had done, and despite the threat of a nuclear war, the mood was quite optimistic. So that is a very strong environment for looking backwards with some contentment, because it allowed us to look forward with some sort of expectation, maybe today people look back and realize how comfortable their parents have been, and they realize how uncertain they are and how worrying their future looks, so looking backwards may be disconcerting. I don't know how you feel about Greek society, but the last ten years have been difficult, and people must be forward-looking because they don't look back without some negative feelings.

#### Why is maritime history important for a young mariner or shipping executive?

When I first came to the museum, I remember looking at paintings of people who owned ships 100-200 years ago. I wondered what it was like. Looking at them, I was thinking that probably those shipowners in the paintings had been sitting there fidgeting, waiting for their 'photograph' to finish, because their 'photographs' took a few hours of sitting. And maybe they were thinking about insurance, crew costs, sailing dates or whether there would be cargo. In fact, all the things that have also been bothering me in the last 20-30 years, working in shipping. Therefore, it is only technologies that change, not people. All of the struggles they had and all the things we find out when we read in history about shipowners' past and their maritime concerns are the same as ours. Will your ship be ready for the tide? What will the weather be like? What will the seas be like? Will the ports be hospitable? Will I find cargo? That is why it is so exciting. Because when you look backward and see that their lives were so similar to yours, you realize that the only thing that changes is technology. So, then we can be a bit calmer because they didn't know what their future was going to be, they didn't know what was going to happen. And yet somehow, they

found their way through it. So, we can gain a bit of resilience and confidence from looking at what used to happen to them.

#### Resilience, quite a modern word!

Well, it is, but people say that it is a modern thing to talk about well-being and mental health problems on board ships. But that doesn't mean that there weren't any mental health problems on board ships in the past. And when we read about old voyages, when we read about the Cutty Sark and the murder on board her, about people who have behaved irrationally or something strange that happened, then we know that it has always been the same things: stress, isolation, tiredness, poor food. Hungry, angry, lonely, tired results in bad decision making. So, modern words indeed, but ultimately humanity doesn't change much. You know that, just read the Iliad!

#### Are you exploring the possibility of collaborating with other maritime museums around the world? If so, what will be the criteria for such collaborations?

We do a lot of collaboration already. There is an International Congress of Maritime Museums, that meets every two years to review what they might be able to do together, or share major ideas about maritime history. We spend a lot of time both lending our objects and taking loans of objects in order to make exhibitions or to give a better exposure of particular stories. So, this goes on all the time in the museum world, and I'm certainly very eager that we should always be doing what we can to collaborate with other museums for the public good, to try and make sure that we can get most things on show in the best possible way. So, you can be sure that whilst we haven't started pooling galleries or museums





yet- I haven't started making a museum pool, yet - I'll be thinking about it.

Given the proximity of Greenwich University, does the museum have a close collaboration with it, and if so, what kind of collaboration?

We have some shared facilities with Greenwich University, and so we do have some engagement around shared conferences. We also have some shared placements for IT students who become interns here. Quite a lot of the students at the museum come and work for us during their spare time on holidays. There is a close collaboration with them and also with the Trinity Laban School of Music and Dance. They often give musical concerts or dance performances in our museum. There are things that we do with universities and schools, and we do some joint conferences with the Royal Institute.

Has the Museum initiated any specific academic research?

Yes, we have a fellowships program, where we initiate and moderate research being done by students. In particular, my own interest would

be to see if we can develop a line of academic research on 19th-century maritime economics, maybe with one of the business schools in London. Our business schools might be interested in such academic research and it would be fun to put maritime economic research in such an interesting location.

What does sustainability mean for a maritime museum?

That is a difficult topic because some museums are better than others. I think that one of the problems we have in Greenwich is that we have 5 or 6 main buildings and 3 or 4 of them are ancient monuments. We have the Royal Observatory, built in 1675, the Brass Foundry in Woolwich built in 1706, while our main buildings were built in the early 19th century. We don't have buildings that are very well constructed for heat conservation or low energy usage. Therefore, it is quite difficult to manage sustainability from a basic estates point of view. Still, everybody is increasingly turning their attention to exhibitions, how you organize them, why you really need to do them, and how much transport is involved in what you're doing. We conducted baseline surveys with sustainability organ-



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*Don't forget that money is an invention. It is not an end. We know what money is for.*

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izations so that we know what our energy footprint is, and then we will work towards reducing that as we go year by year.

During our visit aboard the Cutty Sark, we were impressed by the fact that the vessels' mast was carrying the LGBT flag. Is it easy for conservative

institutions such as the Royal Museums here in Greenwich to adopt such modern attitudes?

It's a very interesting question. Of course, a museum is run by people and for people. Therefore, we have to engage with our people's concerns and interests. A large number of our staff are members of the LGBTQ+ community, and we certainly feel that it is a cause that needs support, and of course, gender equality and sexual diversity are very important to all of us. Although the institutions are old we need to be progressive.

We've seen corporate entities here in the UK but also around the world, and even Greek ones support the museum. Do private entities show interest in sponsoring or contributing to the museum?

Yes, we have a number of benefactors. In fact, our benefactors are now from all over the world. We have predominantly British and significant American ones, as well as other Europeans and Asians. So, it is a very broad spectrum of people that donate and support the museum. There is, however, always room for more! So please do not be shy, if you like what we do come forward and help us.

Do they still support the Museum at these difficult times?

Yes, they do, but of course, we can always ask for more. Our needs never end. A very broad spectrum of people continues to donate and support the museum.

What is the difference between running a multi-global company such as Euronav and a maritime museum from a CEO or social leader's perspective?

There are many aspects of running a museum that are business-like. But it is not a business. Our primary obligation is to be an educator of the

public or be an engager of the public. To show the collection that we have and explain the past. So, whilst we must be able to manage our budgets and be able to afford what we do, our primary goal is not making a profit. On the other hand, whilst our job with Euronav was to carry oil safely, for our shareholders, the objective was to be profitable. Here, our shareholders or our stakeholders have a much wider set of objectives. It is quite a different framework but very enjoyable.

Do you believe that companies nowadays focus too much on profit and less on society's needs and aspirations? Are entrepreneurs and executive boards around the world becoming greedier compared to the past?

Yes, there is a problem, isn't there? Perhaps the problem started with the teaching of economics, which in the last 30 years has been taught as a science or a mathematical concept, while, in fact, it is a social science. So, we must understand that economics must not work as a matter of pure numbers, but rather as a social purpose. Consequently, the analysis of business is rather focused on short term profits, and doesn't revolve around social utility and good quality products that are sustainable and, therefore, a good bet for the long term. Too many analysts have become numbers people. Too many economists are numbers people. Too many businessmen and people from the financial sector as well. There is not enough focus on wanting to be a good member of society with a high-quality product that you can be proud of and with a long and sustainable vision.

May we host this answer? We find it very fascinating.

Of course! I think it is important; otherwise, it is the tail wagging the dog. What are we doing this for otherwise? Don't forget that money is an invention. It is not an end. We know what money is for. It is meant to be a system of accounting, a system of trade, and a store of value. Those are the three reasons for money's existence. But you can't eat money, and you can't love money. So, we have to be human beings before anything else. Therefore, social engagement is important to us. Our relationships, our families, these are things that matter to us, and when we go to work, we should go with a sense of purpose to do something worthwhile that everybody will pay us for, but it has to be worthwhile.





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INTERVIEW







# In an industry that is reinventing itself, it is important to be adaptive and competitive

Mr. **Leonidas Polemis**,  
Polembros Shipping, talks to Charis Pappas

In an interview to *Naftika Chronika*, Mr. Leonidas Polemis shares his views on the most significant disruptors that will shape the future of the tanker market, the effects and trends that emerged during the spread of the recent COVID-19 pandemic, the major geopolitical challenges that he expects will influence and destabilize the wet market, as well as the potential of consolidation as an integral part of the shipping industry in the years to come.

What will be the greatest disruptors that are going to shape the future of the tanker market? In what ways will the shipping industry be different in a decade from now?

The most talked about disruptors right now are those pertaining to regulations on emissions reduction. The IMO has set very ambitious goals and although it is unclear how they will be achieved or which part(s) of the chain will internalize the financial costs and how, the industry will have to comply with them one way or another. The shipping industry will have to employ a range of different tools to achieve 2030 and 2050 IMO targets. Efficiency enhancements (reducing hull friction, reducing ballast water carried, hybrid power/propulsion etc.) or operational enhancements (cold ironing, speed/voyage optimization etc.) are not enough as they alone cannot enable vessels to reach 2050 targets. Neither can any available fuels like LNG, LPG, Methanol, Ammonia – the latter of which theoretically could, but would also realistically pose many difficulties, mainly because it would be difficult to safely produce, distribute and use in the required





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*Although we are not very optimistic about the medium-term tanker market prospects given the severe contraction in the world economy due to COVID-19 and the current and future trade wars, we are confident in our capability to withstand upcoming hardships.*

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quantities. Unfortunately, the IMO does not seem to be seriously considering speed reduction across the board, which is the most effective solution, considering the simplicity of its implementation and its potential impact.

There are signs that some Charterers will, in the spirit of the Poseidon Principles, prefer to fix efficient vessels when given the choice. The constant need for reinventing the way we conduct business, financially and operationally, should in theory result in a wider gap between the players that are prudent and lucky enough to

pick the “right” mix of technologies and fuels to maintain a sustainable business and those that are not. This will further exacerbate the consolidation trend we have observed in the past few decades. It remains to be seen whether Charterers’ immunity to regulations will persist.

It is certain that in the future, ship operators will rely on a plethora of tools including artificial intelligence, in order to dynamically and concurrently use and operate more efficiently, both to control costs and to maximize earnings.

How has Covid-19 affected the wet market?  
Are you optimistic about the tanker market prospects?

COVID-19’s impact on the crude tanker market was actually quite positive in the first half of 2020. The economic slowdown in Asia in the earlier stages of the pandemic led to a drop in oil demand and thus price, which led to Saudi Arabia trying to coordinate with other oil producing countries to cut their production of the commodity in order to constrict supply and stabilize prices. Russia, eager to drive US shale producers (where production costs are high) out of the market to increase their market share of the world oil supply and possibly in retaliation to the US’ sanction of Venezuela’s PDVSA which Russia partly controls, did not comply with the Saudi demand. In response to Russia’s recalcitrance, the Saudis feverishly ramped up production and exports of oil in an attempt to punish Russia by driving the price of oil down and thus applying pressure to Russia’s already hampered economy. A frenzy of demand for ships ensued which boosted the freight market.

Once the supply-demand balance for vessels stabilized, the real effect of COVID-19 emerged, as expected. Working from home has largely persisted and the world economies have contracted significantly, as has air travel, which has led to a significant drop in demand for oil. As a result, the crude oil market has plummeted to historically low levels with no signs of imminent recovery, at least until the second half of 2021 where the first signs are expected to show. The difficulties in effectuating crew changes and surveys have of course been a huge problem for everyone and especially the seafarers themselves but as always, the industry finds ways to cope with and sometimes even avoid the ever-changing obstacles brought about by the pandemic.

As an operator, we cannot help but be optimistic, otherwise we would be chronically depressed with the market’s volatility. Although we are not very optimistic about the medium-term tanker market prospects given the severe contraction in the world economy due to COVID-19 and the current and future trade wars, we are confident in our capability to withstand upcoming hardships with our modern low-consumption/emission fleet and good technical and commercial operational know-how.

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What are the most significant geopolitical challenges facing the seaborne oil trade today? Do you expect any significant changes in the tanker market landscape, as regards the leading oil importing and exporting countries?

Often the most significant geopolitical challenges are not yet known to us as they brew in the background and we only see certain facets of the larger issue. It appears that the largest geopolitical challenge seems to be the battle between China's calculated steps to establish itself as the world hegemon and the rest of the world's attempts to hinder China's efforts. How the next US Presidency will handle sanctions on Venezuela and Iran, whose oil is largely bought by China, will greatly affect trade flows, from the excess US oil flowing on Aframaxes from the US Gulf to Europe and on VLCCs to China.

Is there a particular tanker type or size that might constitute a better investment in the near future?

Obviously there is no way of getting close to knowing, even in a less volatile geopolitical envi-

ronment. We aim to have a relatively balanced fleet, which often helps stabilize the market swings across the various vessel sizes and regions.

Do you believe that consolidation is going to become an integral part of the shipping industry in the years to come? If so, how will it impact the market as a whole?

Consolidation has for many years been a common trend across all industries including shipping where it picked up after the 2008 Global Financial Crisis. The increasing complexity and costs of the shipping industry will placate many smaller companies but also reward those that manage to be flexible enough to adapt to ever-more frequent market swings and changes in regulations and trade flows, as some of their bigger competitors' diverse shareholders and boards at times fail to act cohesively and swiftly. As an organization becomes larger, it becomes more difficult for each of its shareholders and employees to maintain a streamlined vision; and in an industry that is reinventing itself as we speak, it is important to be able to be adaptive and competitive.



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# Greek-Panamanian maritime ties have always been strong

An interview with **H.E. Julie Lymberopulos**,  
Ambassador and General Consul of Panama in Greece, to Giannis Theodoropoulos

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Recently, the 10,000th vessel crossed the Panama Canal since the inauguration of its expanded locks in June 2016, which is a landmark in the Canal's 106-year history. What is the Canal's contribution to the growth of Panama and the whole region?

The Panama Canal is a key component of world trade. It provides a shorter route that reduces distances, time, and costs, connects more than 140 maritime routes, 1,700 ports, and 160 countries, and offers a green route by reducing emissions. In the past 106 years, the Panama Canal has reduced more than 800 million tons of CO<sub>2</sub>. For our country, the Panama Canal is one of our maritime and logistics hub's keystones, representing around a third of the national GDP.

The Panama Canal administrator Ricaurte Vásquez Morales commented on the 10,000th vessel, an LNG, transiting the Canal since its expansion: "Achieving this goal in just four years after the opening of the expanded Canal reaffirms the competitiveness of the interoceanic route, backed by the continuous, safe and reliable service that we have maintained in the current global situation."

The expanded Canal has attracted LNG transport to the interoceanic route due to the neo-Panamax locks' larger dimensions. LNG vessels represent about 12% of the Expanded Canal transits, surpassed only by container carriers with 46% and liquefied petroleum gas with 25%.

What are the main actions that safeguard the high-quality performance of the Panama Registry? What are the measures taken to effectively monitor the fleet's age and quality and the seafarers' level of knowledge?

The high-quality performance of the Registry, the oldest open Registry in the world, is maintained due to the following actions:

- Highly qualified staff (technical and legal affairs)
- Training (in-house and outsourcing)
- Key performance indicators
- ISO 9001:2015 Certification
- 24/7 Customer services (Panama office) – worldwide network
- Network of 53 Consulates and 13 International technical offices
- Technology and innovation in the registration process, recently adopted by digital token (electronic registry and radio license certificate)
- 250 Flag State Inspectors available around the world
- The full commitment of the Panama Authority managerial staff during emergency situations
- IMO Council Member – Category A Country
- 96.43% compliance in PSC's inspections
- Paris and Tokyo MOU White List

As far as fleet monitoring is concerned, during the process of Registry, all vessels, including new buildings, go through a due diligence process carried out by our staff at the Panama Maritime Authority headquarters. This due diligence covers the vessel and the companies related to the vessel and its operation. In this process, many international databases are used to validate the information provided and the company/vessel records (not having been sanctioned by an international





organization, e.g., United Nations). Additionally, the history of the PSC's inspections results is also reviewed.

The General Directorate of Seafarers, Panama Maritime Authority, has taken many steps to monitor seafarers' level of knowledge. Among others, it has:

- Ensured that the Republic of Panama remains on the List of Countries that give full and total effectiveness to the STCW'78 Convention, as amended (White List) and promulgated by the International Maritime Organization (IMO).
- Applied quality processes in seafarers' training and certification activities under the Lloyd's Register accredited ISO 9001:2015 certification.
- Updated legal regulations and technical requirements for seafarers' training and certification in compliance with international conventions ratified by the Republic of Panama.
- Authorized and regularly monitors 17 maritime training centers in the Republic of Panama and 36 abroad, including 2 in Greece.
- Performed on-site authorization audits in all maritime training centers, including monitoring audits and inspections.
- Systematized the seafarers' certification process through the Seafarers' Automated Application (SAA) since 2010.
- Implemented the verification of all technical documentation issued by the Panama Maritime Authority via its website.
- Implemented security measures regarding the technical documentation of seafarers.
- Carried out technical visits and audits by other Maritime Administrations in the headquarters of the General Directorate of Seafarers in Panama City.
- It will soon set up eight (8) Regional Seafarers Documentation Offices and other new offices in strategic locations worldwide to provide more expedited and personalized services to our users.

Are there any plans to upgrade Panama as a training center for seafarers through collaborations with European and Asian institutions so that the seafarers' development can be effectively monitored and certified?

As part of the Panama Maritime Authority's projects with other institutions, we can indicate that our Maritime Administration is currently appearing before the European Commission as it is in the process of having the training and Certificates



of Competence of the Republic of Panama recognized by the twenty-seven (27) member states of the European Union, including Greece. To this purpose, in 2019, our Administration was audited by the European Maritime Safety Agency (EMSA), which verified the training and certification procedures of seafarers conducted by our Administration.

Similarly, the Panama Maritime Authority maintains a policy of promoting Bilateral Agreements based on Regulation I/10 of the STC W'78 Convention, as amended with other Maritime Administrations. Agreements have been signed with Asian countries such as Singapore and the Philippines.

In addition, the General Directorate of Seafarers is preparing to face an audit by the IMO States Parties scheduled for early 2022, when the provisions of the STC W'78 Convention and other IMO international instruments will be audited and amended.

The aforementioned is evidence that the Panama Maritime Authority maintains high international standards in its seafarers' training and certification.

Considering the strong ties between Panama and the US, do you think Panamanian flagged vessels are being targeted because of the US-China disputes?

We do not consider that the US-China disputes have affected Panamanian flagged vessels. At present, the Registry has Chinese shipowners and US shipowners as our largest users.

It is worth mentioning that since 2017, we have a Maritime Agreement with China, which has benefits for ships flying the Panamanian flag. The importance of maintaining close relations that allow free and unimpeded access to our fleet for cargo traffic to and from China is mentioned in this Agreement. In addition, these ships have a preferential rate when using the most important ports within the Republic of China.

The ties between Panama and Greece are very strong when it comes to shipping, as a substantial number of Greek-owned ships fly the Panamanian flag. In which sectors do you think there is a potential for closer collaboration between the two countries?

Greece is the largest ship-owning country, and Panama has the largest ship registry. Our maritime ties have always been strong. We have been working together all these decades. We plan to strengthen that cooperation in many aspects like new techniques, new regulations, new implementations onboard of vessels, and revision of existing rules. As two of the leading forces in the shipping industry, we should continue our close collaboration in the future.

Panama's strongest assets are its strategic location, the Panama Canal, and the the area of "Panama Pacifico," a special economic area offering full operation services and incentives to all businesses (<https://www.panamapacifico.com/aee-en/>). Panama Pacifico offers great incentives to Greek shipping companies relocating their offices or branch to Panama, where they could easily operate all activities related to vessels calling at North & South America and Caribbean ports. Panama, as the "Hub of the Americas", provides easy access to all Latin American countries by offering the best connectivity in the entire Americas (<https://www.copaair.com/en/web/us/hub-of-the-americas>.)

The legal framework for the benefits to foreign companies moving to Panama to start operations is Law No. 41 of 2007, modified by Law 45 of August 10, 2012. It establishes several tax incentives for the company with a Multinational Company Headquarters License and the upper-middle-level foreign personnel working in the same company. More information is available in the following website link: <https://sem.gob.pa/>









# Greek shipping will develop, irrespective of the companies' size

Mr. **Mark Pearson**,

Managing Director of Maran Tankers Management Inc, talks to Charis Pappas

**Mr. Mark Pearson talks to *Naftika Chronika* about the strategic choice of Maran Tankers Management Inc. to support the Greek flag, the unique characteristics of young seafarers, the future of the freight rate market and the conditions that significantly influence market cycles, the lessons learned from the COVID-19 period, as well as the things he admires the most about Greek shipping, which he considers future-proof.**

**Maran Tankers Management Inc. is a strong supporter of the Greek flag. What are the reasons behind this strategic choice? How can a company that chooses its national register maintain its competitive advantage?**

The choice of the Greek flag is built around the principals' beliefs regarding high-quality operations. These beliefs are the driving force behind choosing the Greek flag - we support the employment, recruitment, and training of Greek seafarers to ensure our continued support to the Greek maritime industry. Selecting the Greek national flag also enhances our profile as a quality company and provides us with support in our key ports. We are confident about our choice, which has never been questioned by our quality-minded customers.

**Market volatility and the unpredictable conditions affecting recent market cycles are a constant headache for all companies. Under these circumstances, how can any analyst accurately predict market conditions without taking risks?**

There are various operating models in the shipping industry, e.g., asset plays, short-term market plays, long-term ownership strategies, etc. but we all know that shipping is a cyclical business. The model you choose to follow depends on many factors that influence when you enter, how long you stay, and when you leave the cycle. In general, you will never succeed if you are trying to buy/sell/enter long term charters/play the spot market at the perfect time, i.e., the bottom or the peak of the cycle. Analysts are important because they can offer their input on this decision, but it is ultimately the owner's decision, who

also uses his experience, insight, and instinct. The Angelicoussis Group tends to follow long-term ownership strategies, building a ship, and operating it for many years through multiple market cycles. We are not asset players - we are shipping people.

How can a company like Maran Tankers attract young mariners belonging to the so-called Generation Z in the years to come? Are there any distinctive differences between mariners belonging to previous generations compared to today's young graduates?

Seafaring is an interesting career, still attracting people interested in having a strong and clear career path. The opportunity to take on the responsibilities for navigating a multi-million-dollar technologically advanced vessel at a relatively young age appeals to a specific type of self-confident, independent, and determined person. These characteristics are common to all generations and not just to Generation Z. There is a tendency for

one generation not to be able to understand the next generation and look at the things that they did themselves through rose-tinted glasses. The same thing applies to seafarers. I believe these differences are natural and boil down to a lack of communication and people's belief that the way they were taught and learned was the only correct way.

Mariners are trained on-the-job – it is a practical profession that is mainly learned onboard ships. It is essential to continue this training and to pass this knowledge from one generation to the next. On our tank-

er fleet alone, we provide more than 200 cadet placements every year. It is part of our culture to support the next generation's training, and we believe that all of our senior officers recognize this and continue to help their younger people develop.

In addition to providing on-the-job training, it is essential to recognize new generations' needs to attract them to work onboard ships. Maran Tankers places great emphasis on the wellbeing of its people, both physical and mental. We provide all the facilities onboard for a happy and healthy stay, including gyms and interaction with shore-based

trainers, free internet and WiFi for our seafarers, a healthy diet, modern ships with good health and hygiene standards, and most importantly, a friendly, caring environment with the correct culture, attitudes, and behaviors from both the office staff and the senior officers onboard.

Maran Tankers has invested heavily in VLCCs and Suezmax vessels. Are there any thoughts of expanding further to other ship sizes in the near future?

Maran Tankers is a part of the Angelicoussis Group, operating the tanker fleet. Diversification in different ship types/trades is maintained across the group, looking at the LNG and Dry sectors. One thing that can be noted when looking at the group is that we tend to stick to larger ships, be they VLCCs/Suezmaxes, 184,000 cbm LNG vessels, or Kamsarmax/Cape Size bulk carriers. We have looked at other sizes in the past and will review them again in the future, but it has to be said that our expertise is in building and operating large vessels, and so far, this is working for us.

The shipping market has recently enjoyed days of wine and roses. However, there is widespread skepticism about whether this lucrative period will last. What are your thoughts about the short-term future of the markets on which you focus?

As we mentioned before, shipping markets are cyclical. Days of wine and roses are followed by challenging days, and this is inevitable because lucrative periods do not last forever. The near future of the energy market is unpredictable – people are looking at environmentally-friendly energy sources and energy transportation. Large tankers offer the most eco-friendly and efficient way of transporting energy from the source to the demand centers. Oil will continue to be a major energy source in the near future, and we are well placed to provide environmentally efficient transportation services for this commodity. Decarbonization will present many challenges for the shipping market as it will to other industries.

How has Covid-19 changed the everyday life of a ship management company? What are the lessons learned for a shipping company's employees?

The Covid-19 crisis has had a major impact on everyone around the world. What impressed me

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*It is part of our culture to support the next generation's training, and we believe that all of our senior officers recognize this and continue to help their younger people develop.*

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*The professionalism of the world's seafarers is something that must be recognized and applauded.*

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was how seamlessly, safely, and efficiently the industry managed to keep ships trading even with the world on lockdown in March and April of this year. This was due to the continuation of operations in most ports, the previous investments in technology by many shipping companies, and their

ability to find alternative solutions, one of the key skills for people working in our industry. None of this would have been possible without the professionalism of the world's seafarers.

Crew changes have been a cause for concern for all shipping countries and communities. How can the shipping community be better prepared in the unfortunate event that a similar world crisis reoccurs?

The professionalism of the world's seafarers is something that must be recognized and applauded. Their recognition as front-line workers and the opening of transportation corridors is essential for continuing world trade through such crises. We didn't lock doctors and nurses in hospitals or food production workers in their factories. No decent society can accept that it is reasonable to expect seafarers to stay on their ships for extended periods - sometimes more than 12 months. Besides, it has been proven that the spread of Covid-19 around the world and throughout local societies has not been caused by seafarers traveling through ports and airport facilities.

It was extremely frustrating for all of us working ashore to have our people wishing to get off our ships or see a doctor and not be able to do anything about it because national and local port restrictions superseded our people's basic needs. Things have got better recently, but it took too long to get here, with some countries opening up to crew changes only very recently. The solution has to be found at an international level, and local political concerns should not supersede the human rights of those working on ships to ensure that everyone has enough food to eat, energy to consume, or materials needed to sustain their way of life.

Despite being aware of the risks and the way Covid-19 is transmitted, most countries worldwide are struggling to contain and control the pandemic. I believe many lessons can be learned to prepare for other such crises. The shipping industry seems to have managed remarkably well, with one notable exception, which I hope will never be repeated.

Greek shipping is a successful paradigm of family entrepreneurship. Do you believe that the traditional mentality and structure of most small to medium-sized companies need to be examined and revised?

I am a great admirer of the Greek family-ownership structure - the mentality and cumulated experience passed on from generation to generation, the business instinct, and the hard work must be applauded and continued to ensure this successful paradigm lives on.

I agree that it needs to be examined - not to be changed but to be used as an example of how to build and run a high asset value business, which is subject to cyclical ups and downs in a global environment, without constant direct access to your income-generating assets.

Greek shipping will develop, irrespective of the companies' size, through the use of technology that I expect will simplify the work of those onboard and ashore. But for the family entrepreneurship model to continue, there must be the key ingredients to this model's success, namely the individuals who start a successful company, those who operate the ships, and those who work remarkably hard to ensure that Greece maintains its position as the leading ship owning nation. Many other leading maritime nations, including my own, have lost their strong ties to the sea. I believe that this will not happen to Greece.



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# International Waters

News from the seas of the world



## The business of Shipping

### V.Group and Costamare expand their partnership

V.Group and Costamare Shipping Company S.A. have strengthened and expanded their existing strategic partnership.

The expanded strategic partnership will see V.Group providing a range of management and other marine services from Shanghai and Greece to 41 container vessels associated with Costamare Inc.

The partnership will enable V.Group to strengthen its existing business in Greece and expand the successful partnership with Costamare into the ever-growing Chinese market.

As part of this move, Shanghai

Costamare Ship Management Co., Ltd. will be integrated into V. Group's office in Shanghai, providing additional industry-leading expertise in the container market.

As part of the partnership, V.Group will enhance its manning services in the Philippines through C-Man Maritime and provide the Costamare managed fleet's Filipino crew. V.Group will thus become the exclusive provider of Filipino seafarers to Costamare managed vessels and continue to serve its existing Greek clients' needs.

Konstantinos V. Konstantakopoulos, President of Costamare, said: "With this agreement, we will further utilize the flexibility offered by 3rd party ship management, enabling Costamare Inc. to take advantage of market fluctuations without being constrained by capacity restrictions on the management side. It is important for us to be able to achieve this through a trustworthy partner such as V.Group, which can provide the high level of service required by our Charterers. At the same time, we consider that the arrangement will offer significant opportunities for professional advancement to our people joining the V.Group organization."

Edited by:

**Giannis Theodoropoulos,**  
**Michalis Nikolaou**





### **A new LNG bunkering business in Japan**

Kawasaki Kisen Kaisha, Ltd. ("K" Line), announced the commencement of LNG bunkering business in the Chubu region through its joint venture company with Jera Co. Inc., Toyota Tsusho Corporation, and Nippon Yusen Kabushiki Kaisha (NYK).

On October 20, "Kaguya," the first LNG bunkering vessel in Japan owned by the joint venture company, made its historic first Ship-to-Ship LNG fuel supply in Japan to the car carrier "Sakura Leader," which will be operated by NYK at the construction yard of Shin Kurushima Toyohashi Shipbuilding Co., Ltd.

"Kaguya," based at JERA's Kawagoe Thermal Power Station, will supply LNG fuel to "K" Line's first LNG-fueled car carrier, which is scheduled to be delivered by the end of FY2020.

In the global shipping industry, the International Maritime Organization (IMO) has set a goal of halving greenhouse gas (GHG) emissions from international shipping by at least 50% by 2050 compared to 2008. With the increase in LNG-fueled vessel deliveries, capable of reducing

GHG emissions, "Kaguya" will play an important role in stable LNG fuel supply.

### **Strategic cooperation agreement between Zim and Alibaba**

Zim and Alibaba.com have recently entered into a broad strategic cooperation agreement to directly purchase sea freight, improving logistic services to Alibaba.com sellers. Under the agreement, Zim provides sea freight and services through a direct interface with Alibaba.com's logistics platform.

The cooperation, in force since earlier this year, has effectively improved the visualisation process of Alibaba.com's logistics platform and has proven beneficial for Alibaba.com stakeholders. Zim's extensive network of lines provides stable, high-efficiency, and visible global logistics delivery services for Alibaba.com sellers, along with high-level customer service, product support, and system optimization. Accordingly, Zim and Alibaba.com are evaluating options to expand their cooperation.

Eli Glickman, Zim President & CEO said: "We are proud of this first cooperation with Alibaba.com, which is part and parcel of our innovative strate-

gic vision. We see it as a great opportunity and a mutually beneficial arrangement leading to top-level customer service. It's an important step for Zim, expanding digital services for e-commerce customers as well as small and medium enterprises."



#### **Bulkseas Marine Management is renewing its fleet**

Piraeus-based, family owned Bulkseas Marine Management, founded by Stavros Meimetis, is renewing its fleet. The latest addition is the Japanese, 2009 built, kamsarmax Vela Star ex Ikan Bagang.

The resourceful, low-profile owner has forged an excellent cooperation with the Greek banks, which value his ability to foster rapid adaptability and effectiveness in his business transactions, a fact that has led to the formation of a modern fleet of Supramax, Panamax, Kamsarmax and Capesize vessels, built in the most well-established Japanese shipyards.

#### **Saga Tankers diversifies its portfolio**

Saga Tankers ASA announced the strategy within renewable energy investments. Following the renewable energy strategy, the company will divest non-core assets and change its name to Saga Pure ASA.

"Saga sees significant opportunities in renewable energy investments. We have extensive experience from developing companies within the renewable energy universe, e.g., from the global

leader within hydrogen technologies Nel ASA. Saga has a strategy of actively working with its investments in both listed and private entities with a significant value creation potential and will leverage on the deal flow, resources, and capabilities in our network," says Martin Nes, Chairman of the Board of Directors.

Moreover, Saga announced the initial investment under the focused strategy with the NOK 55 million investment in Everfuel A/S. The company is an integrated green hydrogen fuel company, positioned to capitalize on the EUR multi-billion hydrogen heavy-duty fuel market now opening up in Europe.

#### **Mining giants on the way to recovery**

After a long period of facing various challenges, mining giants are showing signs of recovery. Vale and BHP were among those who had a strong Q3 operational performance.

More specifically, Vale delivered a strong iron ore production in 3Q20. Vale's iron ore fines production totalled 88.7 Mt, an increase of 21.1 Mt compared to the previous quarter. The production record of 56.9 Mt in a quarter was reached in the Northern System, with August being the best month with 19.7 Mt.

The Southern and South-eastern Systems overall performance improved across all operating units, notably in the Itabira Complex and Timbopeba mine (running for a full quarter given the resumption in June) and with the resumption of operations at Fazendão mine in July.

Iron ore production was maintained at around 1 Mtpd after mid-July, showing consistency and stability throughout almost the entire quarter.

All operations were favored by regular weather conditions for the period.

Meanwhile, BHP's total iron ore production increased by 8% to 66 Mt (74 Mt on a 100 per cent basis). Guidance for the 2021 financial year remains unchanged at between 244 and 253 Mt (276 and 286 Mt on a 100 per cent basis).

"BHP has started the new financial year with a strong first quarter of safety and production performance. Group production rose 2% from a year ago, driven by solid results in metallurgical coal and iron ore. With a period of uncertainty to navigate, our efforts to be safer, more reliable, and lower cost are as important as ever. We are alive to the challenges ahead, but we look forward with confidence in our people and our strategy", commented BHP Chief Executive Officer Mike Henry.



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## Blue Economy

### Port of Rotterdam: Projects of crucial importance to the economy, climate, and employment

The Dutch government is faced with various challenges in the areas of employment, economic development, and sustainability – and a series of projects currently underway in the Port of Rotterdam are proving particularly relevant in this context. These projects are expected to create structural employment for at least 9,000 to 15,000 people, contribute a minimum of 7 billion euros to the Dutch GDP, and yield at least 10 million tonnes in carbon savings. The financial and strategic consultancy firm Rebel has validated the effects of this series, known as the Starter Motor projects.

The Covid pandemic has put the Dutch government before the challenge of bringing both economic decline and mounting unemployment under control. At the same time, the Netherlands needs to improve its economic system's sustainability further, achieve the agreed-upon climate targets, and ensure that it can maintain its current prosperity in the longer term. Under the header 'Starter Motor projects,' the Port of Rotterdam Authority has submitted 12 projects to the Dutch government that give concrete shape to these objectives.

One of the key projects in this series is intended to create a strong hydrogen cluster in Rotter-

dam. Among other things, the project focuses on the production of blue and green hydrogen and the development of a pipeline that transports hydrogen between its various points of production and consumption. A related project centres on the planned construction of a pipeline corridor between the port of Rotterdam, Chemelot (Geleen), and North Rhine-Westphalia that will mainly be used to transport hydrogen and CO<sub>2</sub>. This corridor will enable industry in Rotterdam's hinterland to further increase its sustainability while simultaneously allowing Rotterdam to consolidate its position as a leading energy hub for Northwest Europe. A third key initiative is the CCS project Porthos, in which a share of the CO<sub>2</sub> produced by industry in Rotterdam is captured and stored in empty gas fields on the North Sea floor. CCS is a relatively inexpensive way to prevent a large volume of CO<sub>2</sub> from being released into the atmosphere. The above three projects allow Rotterdam's industrial cluster to both innovate and raise its collective level of sustainability, and the port to strengthen its position as a hub for energy flows in Northwest Europe. In addition, Rotterdam's industrial complex will be making a major contribution towards achieving the national climate goals.

### Marine biofuels on the rise

Singapore-based tonnage provider Eastern Pacific Shipping (EPS) appointed GoodFuels to supply biofuel bunkers for its 2010-built 47,377 dead-weight tonne MR tanker M/T Pacific Beryl. The successful bunkering, which took place in early October in Dutch waters, is in line with EPS' Environmental, Social & Governance (ESG) Policy.



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GoodFuels supplied EPS with a residual-fuel equivalent Bio-Fuel Oil (BFO). The BFO's performance will be tested and analysed on M/T Pacific Beryl as well as other classes of EPS managed ships in the near future.

The trial highlights the need for shipowners and managers not to take a wait-and-see approach towards decarbonisation. EPS CEO Cyril Ducau said: "We are fully committed to investing in and taking action to lower our carbon footprint today. At EPS, we believe that sustainability begins with accountability, which is why we are taking a mixed marine fuel approach towards reducing our emissions. We are already implementing LNG and LPG across 30 of our newbuilds, but we need to look at other options for our existing fleet. Biofuels, such as the advanced, sustainable biofuels supplied by GoodFuels, provides us with a solution that matches our values and sustainability agenda. Our whole team is looking forward to the results of this trial and expects biofuels to be another example of not letting the perfect be the enemy of the good."

#### Over \$220 Million in Grants for America's Ports

The U.S. Department of Transportation Secretary Elaine L. Chao recently announced the award of more than \$220 million in discretionary grant funding to improve port facilities in 15 states and territories through the Maritime Administration's

(MARAD) Port Infrastructure Development Program.

"This \$220 million in federal grants will improve America's ports as nearly half the projects are located in Opportunity Zones, which were established to revitalize economically distressed communities," said U.S. Secretary of Transportation Elaine L. Chao.

U.S. maritime ports are critical links in the U.S. domestic and international trade supply chain, and this funding will assist in the improvement of port facilities at or near coastal seaports. The Port Infrastructure Development Program aims to support efforts by ports and industry stakeholders to improve facility and freight infrastructure to ensure the nation's freight transportation needs, present and future, are met. The program provides planning, operational and capital financing, and project management assistance to improve their capacity and efficiency.

Of the 18 projects awarded grants, eight are located in Opportunity Zones, which were created to revitalize economically distressed communities using private investments.

Ports provide countless jobs for Americans and are key to a nation that heavily relies on its maritime services. By providing the funding to support this critical infrastructure component's improvement, MARAD and the Department of Transportation are ensuring these services will succeed during the nation's ongoing economic recovery.

#### Collaborations on mobile carbon capture in shipping

OGCI, a voluntary initiative led by global oil and gas companies to accelerate the industry response to climate change, and Stena Bulk, an international tanker owner and operator, are collaborating on a feasibility study to evaluate the technical and economic challenges involved when capturing carbon dioxide onboard ships while at sea.

The project is partly an extension to OGCI member Aramco's work, which successfully demonstrated carbon capture onboard heavy-duty trucks, but also aims to provide necessary research on a solution that might help shipping reach its target to cut emissions by 50% relative to 2008 levels by 2050. Funded by the OGCI, the project brings together OGCI member companies' expertise in carbon capture technologies, carbon dioxide handling, and relevant infrastructure with Stena Bulk's shipping, trading, and naval engineering knowledge and experience.







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## Geopolitics

### Geopolitical change in Africa - a lifeline for international shipping

The Community of East African States (EAC) regional and economic integration, an ambitious plan to integrate six states into one confederate state, is progressing slowly. This idea has been proposed since these states gained independence in the 1960s but came to the fore again after 2000. The East African Federation (EAF) will be a political union of the states of Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda, as a single federated or confederated state. Its central government will be based in the city of Arusha in Tanzania, described as the “Geneva of East Africa,” as the EAC is headquartered there. In September 2018, a committee was set up to draft the constitution, complete it by 2021, and make the confederate state a reality by 2023.

Once the plan is implemented, the EAF will be the largest country in Africa and the tenth-largest in the world by landmass. With a population of almost 179,000,000, it will also be the second

most populous in Africa (after Nigeria) and the eighth-largest in the world, with a population larger than that of Russia, Japan and Mexico.

Geographically, the federation would benefit from the Indian Ocean to the east and the lakes and mountainous terrain to the west, providing relative protection from the instability of its western neighbors. In addition, the proposed federation would have one of the Indian Ocean’s most extensive coastlines, and the port of Mombasa would become the gateway into the African continent for trade from the east, making it a source of enormous economic growth as the African continent grows.

The EAC’s combined GDP reaches \$ 216 billion, almost equivalent to that of Greece. It consists of the two middle-income economies of Kenya and Tanzania and the four low-income states of Burundi, Rwanda, South Sudan, and Uganda. The call for creating the EAC was the member states’ understanding that they were simply too small to prosper on their own.

However, plans are far behind initial expectations. When the idea was first revived, there were hopes that full political union would be attained by 2015. It was also hoped that monetary union would be reached by 2012, but the latest plans to implement monetary integration by 2024 recent-

ly collapsed. Similarly, South Sudan's accession to the EAC in 2016 created further delays in the completion of the integration project. In addition, the lack of political goodwill and poor economic policies of member states have greatly hindered integration. Finally, public support has emerged as another critical issue, as it is vital in ensuring the integration project's success. However, according to opinion polls, the general public in member states appears ambivalent about the integration project thus far.

All this does not mean that there has not been any progress. The Treaty for the Establishment of the East African Community sets out four milestones on the road to political union: customs union, common market, monetary union, and, finally, political union. The customs union was achieved in 2005, ensuring zero-tariff trade between members and a common external tariff for trade with non-bloc countries.

The next stage, the common market, was completed only five years later, ensuring the free movement of goods, persons, services, and capital between member states and providing the right of residence and establishment. This allows all member states' citizens to immigrate to, do business in, and settle in all member states of the bloc.

The project's completion faces challenges similar to those of corresponding European Union plans since sovereignty and independence issues arise from economic and political integration. However, the East African states' effort may be a sign

of advancement, which will bring the African continent to the "table of great powers."

#### U.S. sanctions six entities and two individuals

The United States has imposed sanctions on six entities and two individuals for conduct related to Iran Shipping Lines (IRISL) and its subsidiary, Hafez Darya Arya Shipping Company (HDASCO), pursuant to the Iran Freedom and Counter-Proliferation Act Section 1244 (IFCA 1244).

Reach Holding Group Company Ltd.; Reach Shipping Lines; Delight Shipping Co., Ltd.; Gracious Shipping Co. Ltd.; Noble Shipping Co. Ltd.; and Supreme Shipping Co. Ltd. are being designated pursuant to IFCA Section 1244(d)(1)(A) for having knowingly sold, supplied, or transferred to Iran significant goods or services used in connection with the shipping sector of Iran, U.S State Department says. Eric Chen (Chen Guoping), Chief Executive Officer of Reach Holding Group (Shanghai) Company Ltd., and Daniel Y. He (He Yi), President of Reach Holding Group (Shanghai) Company Ltd., are also being sanctioned pursuant to Iran Sanctions Act Section 6(a)(II) as a part of this action. According to U.S. State Department, Delight Shipping Co., Ltd.; Gracious Shipping Co. Ltd.; Noble Shipping Co. Ltd.; and Supreme Shipping Co. Ltd., each knowingly sold, supplied, or transferred a large container vessel to Iran to be used in connection with the shipping sector of Iran.



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35,000 m<sup>3</sup> Ethane carrier



LNG Fuel Gas System



5,800 m<sup>3</sup> LNG bunker vessel







## Passenger Shipping

### Successful restart for AIDA Cruises

On Saturday evening, October 17, 2020, at 11 p.m., AIDA Cruises restarted its trips from Civitavecchia, Italy, after a seven-month break in the cruise season due to the corona pandemic. AIDA Cruises has developed new health and safety protocols together with national and international authorities and has implemented various preventive measures. These were i.a. approved by the classification society DNV-GL and the flag state of Italy.

Prior to the voyage and while checking in, guests provide information about their state of health. A COVID-19 PCR test with a negative test result, which must not be older than three days, is required for the embarkation. Guests have the opportunity to have the test carried out free of charge at the German AIDA partner Helios clinics. Before the check-in, all guests' temperature is being measured contactless using a thermal scanner. In addition, a further COVID-19 test is carried out in the port terminal for all guests having stayed in a region or country classified as risky prior to departure.

### Ferry operators struggle to recover from the crisis

The pandemic has had dramatic consequences for the entire tourism industry. In this context, Fjord Line initiated new measures to ensure that the company emerges from the crisis as a powerful and viable shipping company.

Due to the corona pandemic, travel restrictions result in very few passengers in Fjord Line's ships. The situation has worsened over the autumn. Therefore, further cost reductions are necessary, and a new process has been implemented with staff reductions that affect around 140 employees. The number of employees has been reduced by about 300 since August.

New measures must be taken to ensure that Fjord Line emerges from this crisis. This entails a new round of downsizing. "The management team has had a good dialogue with trade unions and shop stewards. As good leaders and owners, we must not only deal with the crisis, we must also work to emerge stronger from it. This means that we must equip Fjord Line to be at the forefront when it comes to green and sustainable solutions at sea, and we must take part in the digitalisation and automation of the industry. We also constantly meet new expectations from travelers and authorities that we must meet proactively. The board and the owners of Fjord Line will do what it takes to support the company through this demanding time", says chairman Peter Frølich in Fjord Line.

### The economic impact of the cancelled cruise season on Alaska

The latest Fact Finding 30 Interim Report issued by Federal Maritime Commissioner Louis Sola chronicles the significant economic impact the cancelled 2020 cruise season is having on Alaska.



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kan citizens and tourism-related businesses. The report concludes that when considered on a per capita basis, there may not be another state in the Nation paying as high a cost from passenger ships not sailing than Alaska.

The recently issued report examines the economic impact of COVID-19 on the cruise industry in Alaska, Washington, and Oregon. It examines 16 Alaskan ports as well as ports in Seattle and Astoria, Oregon.

“Passenger cruising is a vital part of the Alaskan tourism business, and the loss of an entire cruise season has led to the loss of revenue for a disproportionate number of Alaskans,” said Commissioner Sola.

Alaska’s economy rests on three key industries: energy, fishing, and tourism. The last category has been a growth industry for Alaska, with the number of visitors increasing 45% from 1.5 million in 2010 to 2.2 million in 2019. Pleasure cruising is an important part of the tourism sector; in 2019, 1.3 million people traveled on cruise ships.

“In 2019, twice as many people than the number who live in the state came to Alaska took a cruise. With the cruise season’s suspension, the economic activity of 1.3 million was wiped out of the Alaskan economy for the year. Under the best of circumstances and in any other state, there would be no disguising the consequences of losing that much revenue. In Alaska, in the context of the cruise industry, the consequences are greatly exacerbated,” said Commissioner Sola.

Cruise ship operations create unique commercial opportunities for Alaska residents and businesses. Some port facilities and terminals exist solely to support passenger vessels.

Another economic consequence of the loss of the 2020 Alaska cruise season is the missed direct contribution the cruise companies make to the state. In addition to providing services to tourists, cruise companies operating in Alaska base thousands of their crew members in the state. Those seasonal residents pay rent, shop in grocery stores, eat in restaurants, and purchase services. Furthermore, cruise lines and their subsidiaries spend close to \$300 million in procuring goods and services from Alaska-based companies. “If a ship does not call, especially at some of the smaller cruise focused ports in Alaska, people do not make money. If there is no cruise ship in port, there is no work for the longshoremen. If there is no cruise ship in port, no one is shopping in local businesses or eating in local restaurants. If there is no cruise ship in port, landside tour companies have no clients. In major metropolitan areas with major seaports, there will more likely be other opportunities for people to pursue while they wait for cruise ships to begin operating again. In many places in Alaska, the cruise business is the local industry. These are cities of hundreds or a few thousand residents. The people, businesses, and ports in those locations are facing the unenviable challenge of what to do before next year’s cruise season,” concluded Commissioner Sola.



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Mr. Konstantinos Samaritis,  
Head of the Greek Office, Britannia P&I Club,  
talks to Charis Pappas



# Britannia P&I Club:

**Our Greek office has given us  
the ability to better interact  
with our local members and  
understand their needs**

On the occasion of the 2nd anniversary of the establishment of Britannia P&I Club's Greek office, *Naftika Chronika* talks to Konstantinos Samaritis, Head of the Office, about the goals achieved, the reasons behind the establishment of the Greek office, the consequent results, Brexit, as well as the biggest challenges facing the Britannia P&I Club and its members during 2020.

Two years have passed since October 2018, when Britannia P&I Club established its Greek office. What would you say are the most valuable milestones and lessons learned from this journey so far?

The key milestone is that since opening the office in Greece, we have managed to increase our Greek-owned tonnage from slightly over 10m GT to 13.3m GT, representing approximately 11% of the Club's total tonnage. This has been done while matching the level of service previously provided by our London office.

In terms of lessons learned, we believe that financial strength alone is not enough to build a platform for growth and that the ability to engage at a local level is key to the business's success. With an office in Greece, we





are now able to interact with our Greek members more easily and better understand their needs. This has been particularly helpful in the current Covid-19 situation.

What made Britannia P&I Club decide to establish a Greek office? What advantages does this offer to members and managers, and what has been the Greek owners' feedback? Has this decision had a significant impact on the Greek market share and the quality of the services delivered to Greek members?

Until about 20 years ago, Britannia simply did not know the Greek market. Obtaining an understanding of the market has been a gradual process, but thanks to the Greek ship owning community's support, we have steadily increased our presence. In light of the Club's growth, and in order to enhance the services offered to our existing Greek members and provide localized services to potential new members, it was decided that Britannia should open an office in Greece; this would allow us to get much closer to the local market and better understand its needs. Opening the Greek office was also part of a broader strategy to regionalize our claims handling service, which was timed to coincide with the development of hub offices in Japan, Singapore, Hong Kong, Denmark, and, more recently, the US. It was also seen as key to assisting growth in the Greek market, and the return to date, as already mentioned, has been significant. We have been happy to receive honest and positive feedback from our members, who have been very supportive of our efforts to establish the office here. There is no doubt that one of the main factors for the growth of our book of business in Greece has been the new office. Britannia's reach and appeal have been enhanced, and we are hopeful of developing the Club's Greek membership further.

How have the Brexit discussions affected your business?

Not much, I would say. To cope with the post-Brexit era, the Club's managers have established the Britannia Steam Ship Insurance Association Europe MA, a new mutual based in Luxembourg which enables Britannia to underwrite EEA

flagged ships from the date of the UK's departure from the EU. The new mutual is an integral part of the existing Club and will provide Britannia's EU-based Members with the same level of reserves and financial strength as the existing Club. Nevertheless, other than the administrative burden of establishing the Brexit office in Luxembourg, Brexit's impact has been minimal. It has been business as usual for the membership, and it should really be a seamless transition to writing business under the new Brexit arrangements going forward.

What developments have there been in the marine insurance market in the past year? Do you believe that the market will have to re-examine consolidation strategies?

We are entering a challenging renewal as the market appears to be moving towards a harder environment. This is the case for almost all insurance market sectors, and P&I is likely to follow that path. This is perhaps the first time in many years that the markets have aligned in this way. The hull market has lost a significant amount of capacity through both consolidation and strategic market exit, but P&I remains largely unchanged, at least at the International Group Club level. Britannia hopes to achieve an increase in rates and maintain, if not increase, our market share. Any quality growth in gross tonnage would, of course, be welcome, but this would have to be consistent with the Club's disciplined underwriting criteria. In terms of consolidation, most of the Clubs have been around for over 150 years, and there has really not been much consolidation in that time, although there have been a few noteworthy attempts in the past. Nevertheless, experience has shown that Club mergers are hard to implement. Bringing together Clubs with different financial strengths and strategies, two sets of ship owner Club Boards, other shipowner members, and Club managers is not an easy task at all.

What do you think have been the biggest challenges for the Club and its members during 2020?

The most significant challenge the Club and its members have faced in 2020 has been, of course, the effect the Covid-19 pandemic has had on shipping. As far as the Greek office is concerned, there have been extended periods during which staff have worked from home following govern-





ous of these involved cases of crew members who had tested positive for Covid-19. The primary focus has been on crews' health and treatment and those who come into contact with them, which were handled by the Club's specialist People Risks department. However, there have also been many other related issues, such as dealing with authorities and other third parties, as well as the resulting delays and expenses.

On the other hand, we have dealt with several cases in which there were concerns about port or berth safety due to the high rate of local infection and the failure of shore personnel to comply with the Covid-19 safety guidelines when on board the ship or interacting with the crew. The difficulties experienced have varied, as certain ports in some parts of the world have been much worse than others. Other related issues have included dealing with members' requests to deviate from the contractual voyage to perform crew changes. Given the limited number of countries in which crew changes can realistically be performed, the Club has been sympathetic to members when considering such requests.



ment guidelines. Fortunately, as mentioned earlier, the Club's IT system and internal procedures have enabled us to do this without any problems. I am confident that working remotely has not affected the quality of the claims handling services provided to our members.

Of course, the impact of the pandemic on members has been far more significant. Besides its financial implications, the pandemic has created many challenging P&I and FD&D issues with which we have helped members. The most obvi-

### About Konstantinos Samaritis

Konstantinos Samaritis qualified as a Greek lawyer in 1999. He spent the first eight years of his career in private practice dealing with all areas of the law but with a particular focus on shipping corporate matters. In 2007 he decided to move to an in-house role and has subsequently worked for shipowners and two other IG Clubs before joining Britannia's newly established Greek office in 2018 as an Associate Director. In January 2020, he was made Head of Britannia's Greek office, and later in the year, he became a Divisional Director. Konstantinos Samaritis is an Accredited Mediator certified by the Greek Ministry of Justice.



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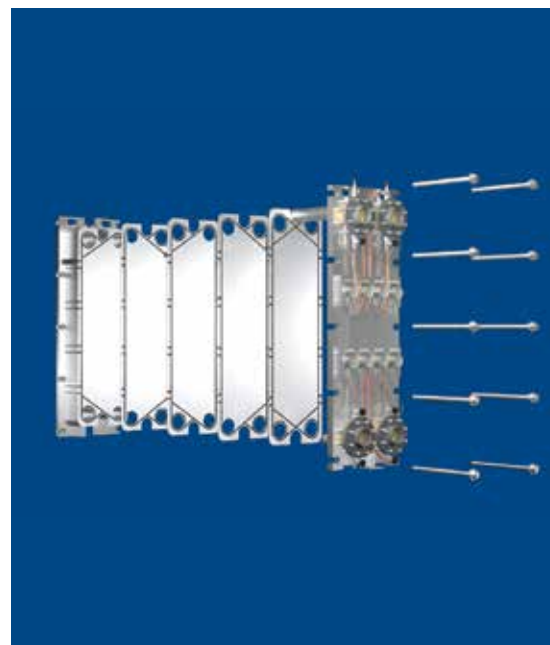
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# R&D in Shipping

Priorities & Concerns  
for a future-ready industry

FEATURE



Edited by:  
**Charis Pappas**



Shipping has flourished in recent decades by heavily investing in new technologies, which made the industry more efficient and future-proof.

But do all technologies have the same value and utility? What are the industry's current needs, and what should R & D focus on in the coming years to better address the real concerns of an ever-evolving industry?

We asked five technical directors to comment on whether pressure from EU governments to make shipping greener is in the right direction and what the shipping industry actually needs to maintain the quality of technology and fleet surveillance systems after the recent COVID-19 pandemic crisis.

The views of the technical managers are presented in alphabetical order in the next few pages.



# Pressure to make shipping greener may eventually provide incentives to replace poorly performing vessels



**Loukas M. Kaniaros,**  
Technical Director, Maran Dry Management Inc.

Greek shipping has flourished in recent decades by investing in new ships and innovative technologies. Do you think the pressure, especially from European governments, to make shipping greener will facilitate tonnage champions to make a huge leap forward? By the same token, do you believe that this pressure will become an obstacle for smaller companies?

The reduction of NO<sub>x</sub>, SO<sub>x</sub>, and CO<sub>2</sub> emissions is at the forefront of current technological developments and future investment planning of all prominent ship owners. Now more than ever, the strict future regulations necessitating technical and operational carbon intensity reduction measures have become of paramount importance.

Referring specifically to the carbon intensity reduction measures, amongst the already known available alternatives, the implementation of which will undoubtedly require considerable

future investments, the following are the most significant:

1. Lowering ship speed by adopting several well-known techniques to limit the ship's power
2. Wind energy power generators
3. Introduction of a dual-fuel engine design that allows the use of LPG, LNG or Ammonia
4. Further optimization of hull design
5. Further optimization of propeller design
6. New coatings technology
7. Use of alternative bio-recycled fuels and FAT produced from renewable energy sources
8. Real-time monitoring and management of the energy consumed
9. Continuous evaluation of the operational performance
10. Design and construction or modification of medium and low-speed engines that will allow safe operation in alternative fuels

The overall pressure to make shipping greener and the emerging highly competitive commercial environment in conjunction with adopting some of the above new technologies may eventually provide incentives to replace poorly performing vessels by forcing shipowners to replace their existing fleet.

Some of the above mentioned “low capital cost” means of compliance for existing ships are expected to be overridden by several newly introduced engine power limitation and speed optimization programs combined with state-of-the-art engine and hull performance monitoring tools.

Undoubtedly, the absorption of a number of significant future investment costs, even those relating to speed reduction, engine power de-rating, and optimal performance monitoring, will negatively impact smaller shipping companies’ growth and sustainability.

On the other hand, over the last decades, Greek ship owners, regardless of their potential, have proved that they are capable of making correct decisions in respect of their future investments and setting their future goals.

The lack of access to many geographical areas by sea due to current health developments has highlighted the need to review the strategies implemented to maintain the quality of a fleet’s technology and surveillance. What changes have been implemented with regards to ship surveys/repairs?

Undoubtedly, Covid-19 has brought about significant disruption to numerous technical and operational activities.

For all the activities relating to class and statutory surveys, specific initiatives taken by various flag states and the more tolerant and flexible stance of classification societies have indeed facilitated the smooth execution of the vast majority of the ongoing surveys.

Nevertheless, in a prolonged crisis period like the one we have been going through over the last seven months, implementing an efficient ship maintenance scheme and strictly following a planned maintenance system have been often neglected.

Examining the issue mentioned above from a managerial and technical perspective, one may realize that achieving these objectives is a real challenge and certainly not a simple matter nowadays.



The uncertainty concerning all the seafarers who are refused off-signing by a disembarkation country could force them to stay on board for many weeks or months, depending on the vessel’s schedule and convenience of the available disembarkation ports. As such, this adverse psychological impact has essentially affected crew performance as well as their competence and concentration, eventually leading to frequent human errors and several damages emanating from frustration and a lack of concentration or motivation.

Some of the results of carelessly performing onboard maintenance tasks as a consequence of the bad psychological state of crews are:

1. Frequent breakdowns resulting in expensive downtime
2. Rapid degradation of the ship and its machinery due to lack of maintenance following the defined standing-orders and prescribed technical practices
3. Putting in jeopardy the company’s commercial credibility, reputation, and statutory status.

Highlighting the broader impact of inadequate maintenance management or execution of certain maintenance tasks, we need to underline the financial aspects that are directly affected by the aftermath of Covid-19:

1. Increased loss of hire due to the breakdown of vessel equipment
2. Higher cost of maintenance and relevant services provided at many accessible ports
3. Increased shipboard maintenance costs associated with the higher manning cost arising from the demand for additional extra bonuses
4. Increased cost in spare parts and supplies transportation

The adoption of a well-organized and optimized planned maintenance system program strictly followed and implemented at both office and ship level will undoubtedly allow a degree of compromise on less critical and demanding maintenance tasks. In other words, increasing the effectiveness of the ship's workforce with a subsequent postponement of numerous non-critical maintenance tasks may assist in reducing potential failures.

This can only be achieved by following the steps below:

1. Performing a risk analysis to identify the risks involved in the absence of certain maintenance procedures, considering the significance of equipment



2. Utilizing service experience as a tool for determining the risks involved in the absence of certain maintenance procedures
3. Utilizing service experience as a tool for establishing an ideal working schedule with predefined inspection-time intervals

In general, our service experience, along with the available statistical data, are assisting us in selecting the maintenance intervals to be adopted and the priority to be given to specific maintenance tasks. This policy may alleviate the fatigued crew members' reduced performance without jeopardizing the vessel's reliability and safety.

In conclusion, the intensive distant training and regular updating of certain procedures, practices, and technical information have helped reduce erroneous actions to the minimum possible. Frequent telecommunications with the high-ranking officers and the consistent analysis and assessment of the day to day technical operations have been proved highly beneficial.

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*Our service experience, along with the available statistical data, are assisting us in selecting the maintenance intervals to be adopted and the priority to be given to specific maintenance tasks.*

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# Constantly compelling shipowners to modify their ships in pursuit of lower emissions makes the industry extremely unstable



**Panos Kourkountis,**  
Technical Director, Sea Traders S.A.

In recent decades, Greek shipping has flourished by investing in new ships and innovative technologies. Do you think that the pressure to make shipping greener, especially by European governments, will facilitate tonnage champions to make a huge leap forward? By the same token, do you believe that this pressure will become an obstacle for smaller companies?

The forthcoming adoption of new environmental regulations has once again triggered intense debate. Numerous regulatory proposals have been submitted to IMO. The EU is in the process of extending the ETS to maritime transportation. The main topic of the debate is the impact of the proposed regulations on the environment and the shipping industry.

One would expect that the environmental impact of a measure is not a matter for debate but the ultimate factor for justifying its implementation and side effects. Yet, not only do we have no

clear idea what the environmental results will be, but some environmental proposals are actually upsetting the environmentalists.

In April 2019, the EU Commission published the "Study on methods and considerations for the determination of greenhouse gas emission reduction targets for international shipping." The study evaluates the various environmental measures and their environmental benefit. However, the EU is adopting the ETS, which was not even considered an environmentally beneficial measure in the study published just a year ago! Indeed, ETS application in shipping has an indisputable financial benefit for the EU and an unclear environmental impact.

Higher quality fuels, logistics to prevent speeding up and long waiting periods, and port infrastructure and facilities could all significantly reduce global emissions. Loading and operating instructions, which are usually decisions made by charterers, have a much larger environmental impact than the



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*For small companies many environmental tasks are daunting and existentially challenging.*

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ship itself. It seems that nobody is interested in reducing the environmental impact of shipping by regulating any of the above factors. The proposals submitted to IMO and the regulatory bodies' attention are focused exclusively on rules applicable to the ships and their management.

The questionable environmental benefits of the proposed regulations are matched by equally uncertain effects on shipping itself.

A careful study of the regulatory impacts on specific types of ships, trading areas, and business models is required. A superficial review might be misleading.

For instance, it seems that the EEXI regulation will mainly affect older ships. Upon closer examination, it is clear that older ships will probably have to be modified only once, and in the worst case, their life will be reduced only by a few years. In contrast, new and younger ships, which will initially have an easy task, will soon find themselves with the Sisyphean task of meeting EEXI revisions for their whole life. It is uncertain whether it will be financially viable to keep pace with the future EEXIs constantly applying forthcoming technologies. Therefore, new ships face a significant risk of being forced out of the market much earlier than their normal lifespan.

The environmental regulations are equal for all, yet it is evident that big companies gain advantages from them, such as access to the capital markets and placing large orders of necessary equipment at bargain prices. Smaller companies cannot afford the luxury of having a team dedicated solely to maintaining their emissions marginally below those of the competition.

For smaller companies, many environmental tasks are daunting and existentially challenging.

Constantly compelling shipowners to modify their ships in pursuit of lower emissions and new environmental goals makes the industry extremely unstable. It is like changing the rules while the game is still being played.

Environmental benefits will come only when all parties involved bear their equal share of responsibility. It is unfair to reject the most efficient environmental measures merely because they are not applied to the ship itself. If the decarbonization path is paved with 2.8 trillion dollars, as stated in some reports, it is unreasonable to expect that the bill will be paid only by shipowners.

The lack of access to many geographical areas by sea, a new phenomenon due to the current health developments, has highlighted the need to review the strategies implemented to maintain the quality of a fleet's technology and surveillance. What changes have been implemented with regards to ship surveys/repairs?

The technological and regulatory developments of the last century bolstered ship safety and efficiency and created a complex network of services around maritime transportation.

Managing the ships of today is an extremely demanding task. Ships travel slower than other transportation means, but the operations in the background are extremely intense.

No modern means of communication and interaction can substitute the support we owe to the ship and its crew. Physical presence and shore services are irreplaceable.

Recent traveling and boarding restrictions have created an unprecedented upheaval in our daily business.

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We have redefined the priorities. Non-essential tasks are postponed, and remote monitoring is being overused.

Crew changes have become an extremely challenging task, subject to top management decisions.

The world shipping hubs have been changing according to available airline flights and permits to board. Service engineers and surveyors only attend the ships when it is absolutely necessary and in a few selected locations. To supervise the repairs in the yards, superintendents board the ships and travel as crew members.

Ship deviation from the original route has become a routine. Operational and voyage expenses are soaring.

It is not only ship management that faces the consequences of the imposed restrictions. All parties involved in the shipping business are seriously affected, and the full impact is still to be defined. A positive outcome of the difficulties created by COVID-19 restrictions has been the accelerated pace of digitalization and remote operation within the shipping industry.

Some of the alternatives to the traditional way of doing business have proven efficient and will continue to be followed once the restrictions are hopefully lifted.

Brainstorming and re-evaluating standard procedures will bring creativity and fresh ideas to shipping.

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# A shift from the voluntary application of proven technologies to enforced implementation of unproven and costly options



**Evangelos Pateras,**  
Fafalios Shipping SA.

In recent decades, Greek shipping has flourished by investing in new ships and innovative technologies. Do you think that the pressure to make shipping greener, especially by European governments, will facilitate tonnage champions to make a huge leap forward? By the same token, do you believe that this pressure will become an obstacle for smaller companies?

Greek shipping, and shipping in general, have always tended to adapt to various innovations, whether managerial, commercial, or technological. The majority of owners and operators embrace changes as long as they are convinced that they will ultimately be beneficial to the competitiveness of their companies and vessels.

Some examples are the development and enforcement of the International Safety Management Code in 1998, which improved the monitoring and management of ships by land-based operators, the access to capital markets that contributed

to modernizing the fleet during the boom years between 2002-2007 and, of course, the technological innovations to which I will refer below in more detail. For many years now, owners and operators, in close collaboration with shipyards, have been investigating the installation of energy-saving devices (e.g., wake-equalizing ducts, propeller boss cap fins, rudder fins), reducing hull resistance (e.g., hull form optimization, applying antifouling coatings), and improving the efficiency of power plants (e.g., de-rating of main engines, waste heat recovery). Up until the last decade, this was done voluntarily without regulatory pressure as operators fully appreciated the benefits of efficient vessels, resulting in a reduction in fuel oil consumption and therefore reduced emissions, which made vessels more competitive in international markets. These markets remain examples of fair competition where the most efficient vessel in terms of fuel consumption and thereby Green House Gas Emissions secures the business.



However, since the 2008 – 2009 global crisis, which seriously affected the cash-flow and, in some cases, even the very existence of many shipping companies, the spotlight has fallen on the environmental aspect both ashore and at sea. The pressure of the environmental lobby on various governments, especially the European ones, has already resulted in the implementation of the Emission Control Areas, the Worldwide Fuel Sulphur Cap, and the reduction in Green House Gases through the IMO, to name but a few.

Therefore, the focus has shifted from the voluntary application of proven technologies to the enforced implementation of sometimes unproven costly options such as LNG fueled vessels, Tier III technologies, scrubbers, and of course, the Energy Efficiency Design Index (EEDI). The EEDI has been devised to promote the use of more energy-efficient equipment and engines but will require an incremental improvement of the initial energy efficiency level every five years by taking advantage of as yet undefined innovations and improvements. So, to answer the question, of course operators with larger fleets will take advantage of their scale, resulting in a smoother adjustment to the new technologies compared to those with smaller fleets. That is especially true for companies which, in addition to the financial repercussions, will also be hindered by the uncertainty of being engaged in traditional tramp trading. One solution would be for these smaller operators to consider consolidation in order to make compliance more economically feasible.

The lack of access to many geographical areas by sea, a new phenomenon due to the current health developments, has highlighted the need to review the strategies implemented to maintain the quality of a fleet's technology and surveillance. What changes have been implemented with regards to ship surveys/repairs?

As a company, we did not have the experience of remote surveys/repairs during the pandemic, so my comments are not based on first-hand experience. For the only programmed drydocking and intermediate survey of a vessel under our management, we made it our priority to select a location that allowed access to our Greek superintendents with minimal visa and quarantine requirements while keeping their health and safety a priority. However, I did hear from colleagues in other companies that they used local superintendents to supervise their drydockings and repairs while

monitoring them from their office via Voice over IP (VoIP) technology. This was not an ideal situation, so the majority of them decided to simply carry out the scheduled surveys and obtain the necessary paperwork to allow the vessel to continue trading. I understand that the technical managers had programmed various additional maintenance jobs they put on hold until the first opportune moment when they could send their own people on board. Therefore, important maintenance has been postponed for a later date, which could even be in 2.5 – 3 years and combined with the next routine drydock and periodical survey.

I also understand that many companies are using remote software that provides live data to monitor the condition of equipment onboard their vessels. In view of the fact that superintendents cannot visit the vessels even for routine inspections, I believe these are essential supportive tools.

Working within the framework of a traditional family-run operation, we have the added benefit of employing crew, especially Masters, Chief Engineers, and Officers, who have been with us since they were cadets and developed professionally in our company. Their feedback and reporting will always be our primary source of information, simply supported by the electronic data.

However, this move towards automation, artificial intelligence, and digital solutions goes hand-in-hand with additional vulnerability and security risks, both ashore and on the vessel.

“Automation, artificial intelligence, and digital solutions goes hand-in-hand with additional vulnerability and security risks, both ashore and on the vessel.”



# Eco-friendly vessels - a new competitive advantage in an industry of constantly expanding environmental regulation



**George Sahat,**  
Technical Manager, Tsakos Columbia Shipmanagement (TCM) SA.

In recent decades, Greek shipping has flourished by investing in new ships and innovative technologies. Do you think that the pressure to make shipping greener, especially by European governments, will facilitate tonnage champions to make a huge leap forward? By the same token, do you believe that this pressure will become an obstacle for smaller companies?

Historically, what has made Greek shipping stand out in the maritime transport industry was its flexibility and ability to address the industry's future needs and do so in a timely and efficient manner. With climate emerging as the top priority across the globe, Greek shipping was one of the first to take the lead and move into green shipping. The challenge is undoubtedly righteous. We should all try to improve our services for the sake of our customers, our environment, and society as a whole - no question about that. However, Green shipping and the "decarboniza-

tion revolution" we have been going through in recent years are tough equations. Eco-friendly vessels have become a new competitive advantage in an industry where environmental regulation frameworks are constantly expanding. Efforts are being made for them to be well-designed to facilitate implementation, but in practice, unforeseen and not accounted for implications often arise in the process. Such disruptions often delay the smooth implementation of requirements with unexpected consequences. Moreover, regulatory frameworks do not offer flexibility rights; this makes it difficult for all stakeholders to achieve compliance and overall smooth implementation in order to achieve our joint objective of cleaner practices on emissions control, port management, and equipment life cycle.

On the other hand, green shipping, in other words, the reduction of greenhouse emissions (GHG) and carbon dioxide (CO<sub>2</sub>), ballast water management, and optimized EEDI indexes, come



at a high cost. They require onboard infrastructure development, highly sophisticated digital infrastructures, specialized training for shore-based and seagoing personnel, business development reporting schemes, and additional specialized shore-based personnel to support and monitor performance & validation metrics. In order for shipping companies to stay afloat when fuel prices rise and when pollution from emissions reduction demands, slow steaming becomes more of a necessity than an option. However, the decision for slow steaming is made by companies in order to become environmentally responsible. The cost of technological innovation rises to billions of dollars, and the bill has to be picked up by the shipowners who have been struggling to get out of the red following the world economic downturn in 2008 and the recent Covid-19 outbreak. Picking up this bill will be more difficult for smaller companies to deal with, considering they will need more resources and effort to keep up with the dynamic changes in environmentally-related matters. While some financial institutions have been backing up the financing of green shipping, the smaller companies' access to such financial instruments is limited.

Shipping has historically been a simple business. Today, it is regrettably becoming an increasingly complicated one. The challenge is who will

be able to withstand this complexity and, above all, the costs that are excessive even for smaller players. Hopefully, these conditions will not lead the industry to become a field of only large players. This would have negative consequences and would distort the very essence of the industry.

The lack of access to many geographical areas by sea, a new phenomenon due to the current health developments, has highlighted the need to review the strategies implemented to maintain the quality of a fleet's technology and surveillance. What changes have been implemented with regards to ship surveys/repairs?

The outbreak of the Covid-19 pandemic changed the way we think and operate. None of us had expected the extent or the pace of the disruption that the Covid-19 pandemic would cause. Moreover, none of us had expected the length of the global disruption it would bring. There was no other option for all of us, but to adjust and do so fast. We had to be flexible, resourceful, and innovative. Technology did play a key and pivotal role in this process as we were facing severe difficulties in deploying service teams both onboard and to repair sites. As such, we moved into remote troubleshooting and remote surveys, integrating state of the art technology to ensure optimal remote surveillance and performance monitoring. We have now entered a remote DD monitoring framework and upgraded our technological infrastructure and onboard support to advance technical reporting capabilities. Service providers also provided advanced services resolving operational issues via remote connections between the vessels and expertise centers. We set up teams that were available around the clock and remained mobilized to assist via chat, audio, and video collaboration tools and remote support applications. This extraordinary situation has proven that a large percentage of operating issues may be resolved remotely. But foremost, we had to focus on further educating and supporting our onboard crew in being more cautious and diligent on all arrays of maintenance processing and incident reporting. We ran continuous campaigns to raise onboard personnel alertness and vigilance on prompt reporting. We need to have one thing in mind: technology has relieved some pressure during this pandemic and helped deal with this situation. Nevertheless, technology does not substitute the tremendous value of the human element onboard and ashore.



# Solutions to comply with the highly demanding IMO 2050 targets exist only in theory and not as readily available technologies



**Andreas Spertos,**  
Technical Director, Maran Gas Maritime Inc.

In recent decades, Greek shipping has flourished by investing in new ships and innovative technologies. Do you think that the pressure to make shipping greener, especially by European governments, will facilitate tonnage champions to make a huge leap forward? By the same token, do you believe that this pressure will become an obstacle for smaller companies?

The targeted reductions in CO<sub>2</sub> and GHGs put forward by the IMO and the European Union will promote ship technology changes that may be comparable in magnitude to the transition from sails to steam in the 19th century.

It is ironic that 150 years later, we are now asked to reverse this process, in the sense that we are obliged to go back to “wind” power or any other kind of energy source that has a zero environmental footprint.

The industry has already been engaged in comprehensive discussions about this transition. It

appears that currently, the solutions to meet the highly demanding IMO 2050 targets exist only in theory and not as readily available technologies - with the exception of LNG, which despite being an already tested solution, is not capable on its own to become the holy grail of carbon-free shipping.

The investment required to meet even the 2030 IMO target, assuming the wide adoption of LNG-fuel propulsion on newbuild ships, is quite substantial. If it does not lead to an equivalent commercial benefit by increasing freight, it will be a financially difficult decision for ship owners, especially smaller companies.

For existing vessels, the level of investment required to improve performance will, of course, depend on the regulations eventually adopted, be it through EEXI, CII, ETS, SEEMP, or any other combination. This may be more advantageous for larger companies for several reasons, such as the availability of financial and technical resources, the

economies of scale achieved when it comes to implementing solutions, and the potential luxury of being able to try out, evaluate, and compare different options when you are a bigger player.

What is equally important and may prove challenging for big and small companies alike is the need to carefully monitor the developments on the regulatory side and simultaneously keep an eye on the trends and technological developments on the industry side. When selecting appropriate solutions to meet future regulations and market requirements, it is extremely important for a company to act quickly and in the right direction. This is even more critical when it comes to newbuilding designs.

It is going to be a difficult task, but we believe that the commitment and full engagement of all parties in providing information, advice, and guidance on such decisions will reduce the risk.

The lack of access to many geographical areas by sea, a new phenomenon due to the current health developments, has highlighted the need to review the strategies implemented to maintain the quality of a fleet's technology and surveillance. What changes have been implemented with regards to ship surveys/repairs?

We have indeed faced unprecedented and unplanned-for conditions due to the COVID-19 pandemic. All land-based industries have no doubt been obliged to change their management and operation procedures and practices. But for the shipping industry, it has been a particularly trying period, mainly due to the mobile nature of its assets and the fact that they trade all around the world.

The biggest and probably most serious challenge of all concerned the ongoing humanitarian crisis caused by crew change restrictions. Our seafarers' well-being is of critical importance not only to their mental and physical health but also because the operational quality of shipping is largely governed by the human element on board. As far as ship inspections, surveys, maintenance, and repairs are concerned, I must admit that we have experienced many problems, but not to the point that we were forced to put any vessels out of service due to a failure or expired certification. This is because most parties involved in supporting the shipping industry quickly adapted to utilizing various communication technologies to cope with the traveling and attendance restrictions.

The IMO, Flag States, and Classification Societies

commendably adopted a pragmatic approach. They supported certificate extensions and remote surveys, which are now being used extensively and most probably will continue to be used after the pandemic.

Major equipment and system manufacturers have also contributed by using remote diagnostic/troubleshooting technologies and were more supportive of condition-based maintenance schemes, which allow more time between overhauls with-



out compromising reliability. We very much hope that more OEMs will follow this path by providing improved technical support and training resources remotely to allow more maintenance on their equipment by the crew onboard guided by such remote support and detailed procedures. Most ship attendances and audits have had to become virtual, and there has been more encour-

“

*A virtual inspection is by no means equal to a physical inspection by an experienced superintendent or surveyor.*

”

agement by shore staff to the Masters and Chief Engineers to accurately report the condition of their vessel and equipment. Needless to say, a virtual inspection is by no means equal to a physical inspection by an experienced superintendent or surveyor. However, we

are convinced that by

modifying our procedures, we have managed to maintain control of our vessels' condition and provide support to our crews with more frequent/detailed reporting via remote links.

Since February, office staff attendances of Maran Gas ships have been reduced substantially, but this has not had a negative impact on key performance indicators such as the increase in failures, third-party observations, etc.

It is by no means business as usual, but with increased effort, and by adopting new procedures and practices, we have succeeded in managing the risks.

Of course, all this has been possible only through the full support of well trained and highly qualified crew and office staff and the recognition that we are in a very privileged position due to the good condition of our assets at the beginning of the pandemic.

Major overhauls and dry dockings have been more difficult to organize efficiently than routine in-service maintenance and surveys, especially when it came to specialized vessels like LNG Carriers, which could call at a very limited number of repair yards around the world. Shipping companies must continuously monitor the situation at repair yards and travel restrictions of the countries involved. If needed, they must be prepared to rapidly revise the drydock schedule or location to support dry dockings during this pandemic.

I am aware that employing third-party maritime consultancies to supervise dry dockings has been practiced by a number of other companies; however, for specialized vessels like LNG carriers, it is quite difficult to follow this route.

Concluding, I am confident that in the short term, we can manage with the alternative practices implemented so far. Still, I dread to contemplate what will happen if this situation is not resolved during the first half of 2021, especially taking into account its effects on seafarers' mental health onboard and ashore.

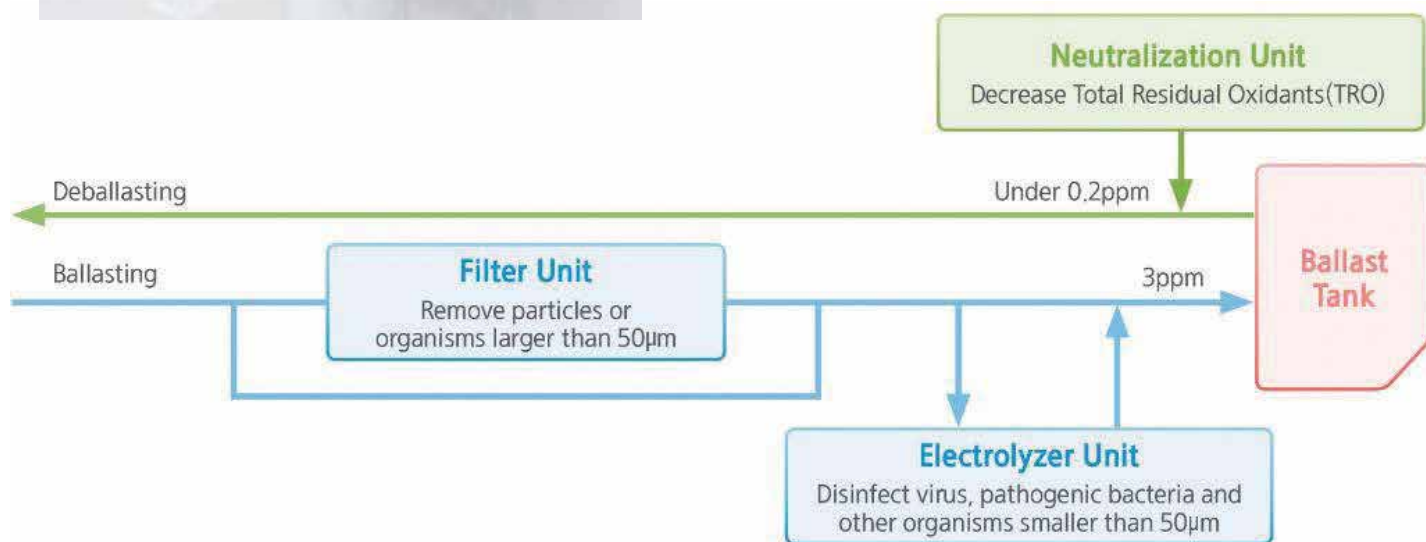
The good things that have come out of these challenging times are the new procedures and practices utilizing remote diagnostic and communication tools, which, although previously available, had not been fully utilized due to the conservative nature of the shipping industry. More such tools and techniques are currently being developed that will undoubtedly remain useful in a post-pandemic world.







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# Prevention is always better than cure

An interview with Mr **Petros Achtypis**,  
CEO, Prevention at Sea

**Prevention at Sea provides a wide range of innovative tools and maritime services that enable paperless functionalities, fleet performance optimization, effective treatment of marine operational risks, prevention of 'human factor' errors, and regulatory compliance, all of which allow the maritime business environment to thrive. In his interview to *Naftika Chronika*, Mr. Petros Achtypis talks about the company's vision and short-term goals.**

## What sparked your interest in ship safety?

Starting my career as a newly trained naval architect and mechanical engineer from the National Technical University of Athens, I reached a fork in the road when I had to decide between the two career paths typically available to a naval architect: ship design and repairs in shipyards, or ship management.

I chose the second option. The fast-changing pace of a shipping company was very alluring, as it is an environment in which you deal with complex tasks and learn something new every day. I spent

the first five years of my career visiting drydocks around the world and attending regular fleet and Port State Control (PSC) inspections. This was ideal for me since I have always had a keen interest in the preservation of ship safety through the application of the International Safety Management (ISM) Code, risk assessments and auditing techniques, incident investigations, and the simplification of highly complex Safety Management Systems. I subsequently devoted the next eight years of my career to working in the Health, Safety, Environmental, and Quality sector, focusing on the effects of the human element on ship safety.

## Why did you create Prevention at Sea Ltd?

After working extensively in HSEQ in shipping, I realized that what was missing from the industry was pro-active thinking to prevent safety incidents. In 2013, I founded Prevention at Sea to fill that gap.

Ship operation and management are complex tasks directly affected by the human element. I have encountered plenty of human-induced risks throughout my career, which escalated into significant incidents resulting in loss of hire, delays at ports, serious ship deficiencies, detentions, and adverse commercial or financial effects. All of this could have easily been prevented if pro-active attention had been paid to trigger points and warning signals at an early stage.

Therefore, Prevention at Sea exists to promote proactiveness. Our philosophy is very much driven by our name. We believe that the 'key' to moving forward in this complex industry is implementing the concept of 'prevention' by combining old-school shipping with technology.

Our business employs a new hybrid operating model that allows shipping professionals with experience in SMS simplification, regulatory compliance, risk assessments, environmental protection audits, and various types of remote audits, and software developers who develop state-of-the-art, innovative maritime software solutions to cooperate under the same roof. Prevention at Sea's headquarters is based in Larnaca, Cyprus, while our network also covers Greece and other major shipping hubs.

#### What are the 'flagship' products and services of Prevention at Sea?

Our maritime advisors offer compliance services such as ORB reviews, ECDIS/passage plan reviews, and Voyage Data Recorder (VDR) audits. We also provide ship management or Tanker Management and Self-Assessment (TMSA) audits. TMSA audits are carried out with the aim of efficiently preparing tanker management companies for a successful TMSA audit by oil majors.

HELMET, our continuous compliance program for dry bulk companies, is a risk assessment scheme incorporating a gap analysis service that ensures successful auditing standards both onboard and onshore for bulk carriers.

In addition to these services, we offer a range of innovative software products.

Our e-ORB maritime software (MARPOL electronic oil record book) allows a computer to fill out ORB entries with minimum human/ manual input – it was the first-of-its-kind in the industry. We are extremely proud that TEN (Tsakos), Oldendorff Carriers and MOL in Tokyo, just to name a few of the early adopters, recognized our product's added value and decided to implement it on their fleet.

MORSE Maritime Operations Reporting, Storage & Exchange) is a cloud platform tool designed to assist shipping companies in seamlessly transferring ship record books and logbooks from paper to digital formats.

The Fleet Information SHaring (F.I.SH.) platform is an online ship data platform designed to standardize, automate and reduce the time spent on the ship inspection process and ship data collection for review by third parties such as the PSC authorities and Flag States.

#### What is the role of your maritime advisory team?

At Prevention at Sea, we want to reinstate the trust in 'consultants' through our quality work, reputation, and tailor-made maritime services. Our team of expert consultants provide directions, advice, and auditing services for TMSA & DBMS GAP analysis, Internal audits, VDR audits, Compliance checks such as ORB and Passage/ECDIS plans, Safety Management Systems (SMS) reviews, SMS simplification, remote audits and real-time close-ups such as PSC preparation.

Regretfully, the term consultant has attracted negative feelings in the past, and over time consultants were deemed untrustworthy. As always, the truth is somewhere in the middle. On one side, shipping companies are pressing for better prices, which forces the consultants to find ways to remain competitive. However, this has an adverse impact on quality since the easiest way to keep prices low is to standardize services as much as possible, which results in 'discount supermarket' services. Another very common approach is what we call 'copy-paste' services, which, more often than not, end up being dubious services based on untrustworthy data.

On the other hand, the term 'consultant' has been tarnished by high prices, lack of real expertise, and new consultants dropping into the market out of the blue, and those taking the old-fashioned approach of using only their network and contacts to deliver the desired result to their clients. Some even take work and projects completed by other consultants, copy it, and present it to a client as their own. Fortunately, this is not possible in the modern world as it is certain that the shipping community can easily recognize the original source.

I truly believe that today shipping companies have started to recognize that a very low fee for a service that requires high technical expertise and great analytic skills does not ensure high-quality service. There is always a red line that should not be crossed. It has been proven in the past



that cheap, questionable services result in great expenditure for shipping entities and create major fleet operation complications. I am also certain that when it comes to implementing regulations and focusing on qualitative elements during third-party audits, high quality is the result of drawing solid red lines rather than a 'ticking the box' exercise during the auditing process.

At Prevention at Sea, we do things differently. We believe that high quality does not necessarily mean expensive services. The foundation of cooperation with our clients and the role we want to take on is that of a 'trusted advisor,' a role based on true facts and a long-term partnership in innovation and safe business. This is the mission of our consultancy team.

We also believe that a trustworthy consultant should always endeavor to maintain a high reputation among stakeholders. Otherwise, they may end up with cases where oil majors will not accept certificates, reports, projects, or work from disreputable consultants when conducting TMSA audits.

Greece and Cyprus are perhaps the best and most reputable and well-respected shipping communities for ship management. At the same time, we believe it is the right time for consultants originating from those hubs to prove that besides ship management, Greeks can also excel in maritime consultancy and delivering high-quality services.

#### What challenges have you overcome since establishing Prevention at Sea?

Resistance to anything new is common and somehow expected in the shipping industry. Therefore, establishing a new company and

introducing a new hybrid operational model was not easy.

In the beginning, Prevention at Sea had one employee struggling from his cardboard-box desk to impart his ideas on the importance of the human element and his experience in risk assessment to potential clients – pushing them out of their comfort zone.

Nevertheless, Prevention at Sea has celebrated many successes in our short existence. We have been named winner of four highly prestigious industry awards to date. We also received the 'Certificate of Special Recognition' by Senator Richard Blumenthal for our disruptive innovation in 2017.

This year, we hope to win once again at the Lloyd's List Global Awards 2020, together with the Cypriot Deputy Ministry of Shipping (DMS), for the collaborative FISH platform software project.

#### What is your message to the industry?

The term 'human element' should not be misinterpreted as something that occurs on the sidelines. Humans and their decisions affect shipping tremendously as they are at the very center of this industry. Every few minutes, a new decision is made that may affect the working environment or established procedures of a ship's daily work routines right through to the policy decisions taken at an international level.

Despite the decreasing number of accidents over the years, we still see disasters whose impact on the environment and society is devastating. There are shipping professionals who believe that more than 80% of incidents can be attributed to the human element. One could refer to the recent MV Wakashio and EL FARO tragedies,

both of which were the result of bad decision-making. At the same time, 'compliance' is a crucial word that remains at the center of the on-going debate.

Being on the frontline every day, I would say that the shipping industry needs to go beyond the checklist and factor in the human element. My hope is that Prevention at Sea will positively contribute to replacing the current 'tick box' culture with a greater emphasis on a proactive approach that puts people at the center. I also hope the industry will realize that it is safer to invest in proactiveness and people rather than reactivity.





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## After all, we have always been green!



by **Dimitris Galanis**,  
Marine Engineer / Sales Manager,  
Marichem - Marigases

For many decades, Marichem Marigases has been at the forefront of promoting environmental consciousness within the chemical industry, throughout all stages of production, starting from the raw materials, the manufacturing process of the products and their handling, through to the final disposal of their byproducts. Over the years, our experienced staff in our laboratories has invested on research and development of products that are compliant with the latest norms and changing standards of the international environmental legislation.

We know that environmentally sound business makes us even more competitive in the global marketplace, thus we insist on technical expertise, technological innovation, professional dedication, respect and adherence to imposed environmental standards. We are in constant search of ways to minimise our use of and impact on natural resources and encourage our customers to use our products in a more eco-friendly way. Hence, we contribute to meeting the ever-changing marine industry needs, whilst we decrease our total ecological footprint.

Marichem Marigases' four-fold plan of action

- Investing in research, development and improved technologies
- Pursuing business opportunities in promising innovative energy technologies
- Supporting flexible and economically sound policies that protect the environment
- Sponsoring a wide range of programs that promote environmental sustainability



Our company has always prioritised the attainment of imposed environmental standards at any given time, also ensuring safer operating practices. This is feasible thanks to the continuous research for new, readily biodegradable raw materials and advanced technological methods, through which we manufacture and provide safe, naturally biodegradable products. We have accomplished this challenging goal by systematic methodology and multiple field applications.

Marichem Marigases offers a wide range of non-hazardous for the marine environment products. We continuously search for new products and advanced technology applications in order to keep track with the latest regulations for maximum environmental safety. According to statistics, shipowners and managers have drastically shifted their focus to ordering products which are more eco-friendly, resulting from the fact that regulations are becoming even stricter, but also that environmental awareness is an everyday matter to us all.

Our main objective is to reinforce effectiveness through ceaseless innovation and to gradually eliminate the use of solvent-based raw materials, in order to replace them fully with non-hazardous for the marine environment substances. Our revolutionary series of Bioactive products serves as an exemplary case of the efforts put towards this end.

Marichem Bioactive series of products offers a complete solution for environmentally, sustainable, highly effective cleaning, descaling and maintenance of lavatories, drain lines, vertical surfaces and living spaces.

Sanitation products are specifically designed to treat and prevent organic build-up in waste systems. Their frequent and proper use ensures that a vessel's sewage water system, including the pipes and drains, remains in optimal working conditions.

These products are eco-designed, so as to have an increased self-life, while remaining readily biodegradable to minimize their environmental impact. They are especially formulated containing, among other ingredients, micro-organisms in liquid suspension and biosurfactants produced by selected and adapted strains and essential oils. Their packaging is 100% recyclable.

Bioactive products are safe both for people and the planet. They do not contain hazardous materials; they are GMO-free (Genetically Modified Organisms - free), their active ingredients are derived from renewable resources and are not pathogenic to humans.

Our series consists of five (5) products: Bioactive Powder, Bioactive Descaler, Bioactive Floor Cleaner, Bioactive Liquid and Bioactive Toilet Cleaner. For a more detailed description of each of the products and their use, you may visit our website.



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# Control the Controllables

What shipping companies can do today to reduce their environmental footprint (and save money)



by **Aaron Holton**,  
CEO, Tres Solutions

Pull up any shipping journal, and it's not difficult to ascertain what the maritime industry is focused on. In a recent informal review, 20% of the headlines across four leading industry news outlets were about regulation, technologies, fuels, or other initiatives to reduce emissions from the maritime sector. In a recent virtual conference, half of the sessions were related to how shipping was gearing up for decarbonization.

This narrative is not new, but it is growing louder. The industry has and will continue to improve ship design, introduce alternative fuels, and pioneer new technologies to reduce maritime's impact on the environment. Governments, regulators, customers, investors, and banks demand it. Although the change may be difficult for some stakeholders, it will happen, and we'll all be better off for it.

## *Change Your Mindset*

Resistance is futile, so discussions should shift to what we can do about it today. As Theodore Roosevelt said, "Do what you can, with what you have, where you are." At Tres Solutions (Tres), we help our customers improve the efficiency of

operations. This includes improving data quality, optimizing consumption, increasing operational efficiency, minimizing daily running costs, and importantly, reducing emissions.

We actively contribute to discussions around efficient ship design and environmentally friendly fuels, but we are not directly responsible for these outcomes. Ship owners, technical managers, and charterers are also influencers and perhaps testers, but again, they do not directly control the outcomes. It's important that our customers ensure they have a robust fleet renewal program in place, make sound decisions as relates to hull coatings, install energy savings devices on ships and comply with IMO regulations around low sulfur fuels, among others.

These strategies undoubtedly require commitment and investment. It is essential not to forget the impact of streamlining vessel performance on emissions. With a basic commitment to improving data collection and implementing better operating practices, shipping companies can begin reducing their environmental footprint today. Don't forget that this will also have the dual benefit of helping save money!

To put that into context, for each metric ton of VLSFO consumed, 3.114 metric tons of CO<sub>2</sub> are emitted into the atmosphere. The global average bunker price for this same ton of fuel is US\$360. If a fleet of 36 tankers (5.4 million total DWT) consumes nearly 350k MT of fuel per year, they are also emitting 1.1 million MT of CO<sub>2</sub> into the atmosphere with an estimated fuel bill of almost US\$125 million. Think about the potential of reducing consumption via a more proactive vessel performance optimization program – 5% improvement would yield US\$6.1 million savings and a reduction in CO<sub>2</sub> emissions of 54k MT. That's powerful!

This does not include the benefits from emissions control of halocarbons (HC), particulate matter (PM), sulfur oxide (SO<sub>x</sub>), nitrogen oxide (NO<sub>x</sub>), and methane (CH<sub>4</sub>). All of these will be increasingly tracked, and reduction targets enforced as regulations evolve.

The "Tres Approach" is designed to help customers address this very challenge. We work with each company to establish clear and, more importantly, controllable targets to improve vessel performance and reduce emissions.

## *Choose Your Unique Path*

Not every ship owner, technical manager, or charterer has to approach this in the same way. A charterer usually has a different set of goals compared to an owner, but both can take steps



to improve environmental efficiency.

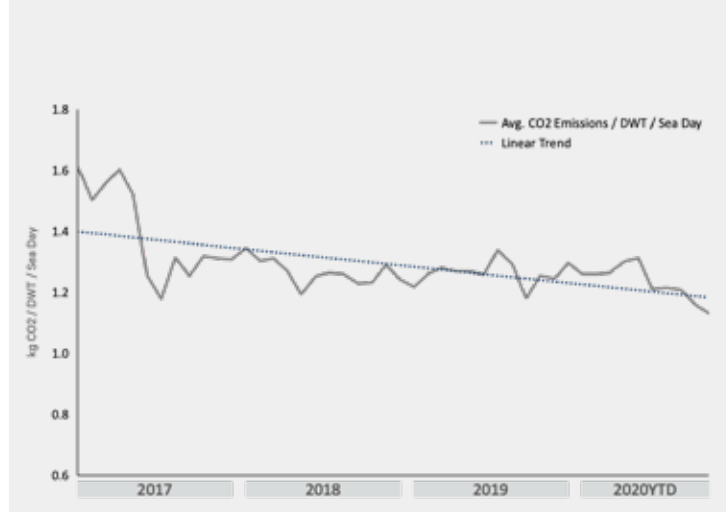
The image below shows the actual impact of a targeted vessel performance optimization strategy from a notable tanker owner. Since 2017, our Tres Vessel Analytics (TVA) software and service platform have contributed to an emissions reduction of 14%. This equates to 76k MT of fuel savings, or US\$26.6 million.

Whether you have an in-house program or use a third-party system like TVA, it's important to make sure you have reliable data and then a suite of tools at your disposal to improve decision-making. When the goal is efficiency, no stone should be left unturned. TVA covers holistic performance so that it can drive improvement via a combination of hull & propeller performance, main engine maintenance, auxiliary engine utilization, trim guidance, CLO consumption optimization, port optimization, voyage planning, and many others.

### *Measure the Impact*

There are a number of ways to measure the impact of your performance program as it relates to environmental efficiency. Based on your Ship Energy Efficiency Management Plan (SEEMP), you should already be monitoring environmental and operational efficiency using the Energy Efficiency Operational Indicator (EEOI). We like this metric because it not only provides an indicator of the energy efficiency of ships in operation, but also enables internal (and external) benchmarking of vessels.

EEOI will also continue to gain prominence as a measure of efficiency. The Sea



Cargo Charter global framework will use EEOI as a way to measure climate alignment among its signatories. Many shipping companies will be required to disclose their Annual Efficiency Ratio (AER) to financial institutions to measure and compare their fleets' carbon efficiency. Other companies will look at absolute emissions or normalize emissions based on tonnage.

Again, it's important to be clear about what you are trying to improve and then accurately measure and manage toward these goals. Doing so will not only reduce the environmental impact from your operations, but it will also help your company save money. It's a win-win for everyone, so why wait to get started?



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**You can do so many things in your life but turning back the clock is not one of them**

by **Peter Sand**,  
Chief Shipping Analyst, BIMCO



### *The many uncertainties in the shipping market, dent the appetite for S&P*

It has been a turbulent year in many ways, with the COVID-19 pandemic sweeping around the globe, impacting all of us. Not least a global industry like shipping. Being seaborne by nature, you may not realise that a lot of shipping business requires air travelling at large. Taking over a new ship, inspecting a ship, transferring the money from buyer to seller, and of course for crew changes.

### *Would you go and buy yourself a bulker right now?*

Every year, around 6-7% of the active bulk carriers are traded. Depending on the second-hand prices over the years, such activity requires about USD 5-9 billions. Quite a lot of money indeed, but the shipping industry has never been short of willing lenders. Even when we “needed it the most” in the aftermath of the Global Financial Crisis of 2008-2009 – to avoid the delivery of a massive orderbook. If only lenders had refused to finance the ships on order back then, we would have a different market today.

You can do so many things in your life but turning back the clock is not one of them.

Every sale represents two different views of the underlying market.

Let us focus on a few stereotypes – firstly on the sell-side:

- The seller is an asset player who does not believe the price will go any higher.
- The seller may seek to deleverage his exposure to ship owning.

Secondly, on the buy-side:

- The buyer is an asset player that believes a higher price for the ship will come around within his perceived window of risk.
- The buyer is seeking to build a fleet of his own, to cover cargo commitments already made with a client.
- The buyer may also be a financial institution



not specialising in shipping but with an interest to have some exposure to ship owners. Right now, many deals are done as a sale and lease back, and BIMCO has just finalised a contract for that purpose, enhancing our ship finance term sheet suite by introducing SHIPLEASE, an industry first standard for ship sale and leaseback.

SHIPLEASE is an indicative term sheet for use in both operating and finance leases. It has been developed mainly for second-hand ships but can be adapted to fit newbuildings.

The increased interest from financier and asset players at large have also caused a shift in deals done, skewed towards the work horses of the industry. The assets that are most liquid in the market due to numbers and thus potential buyers.

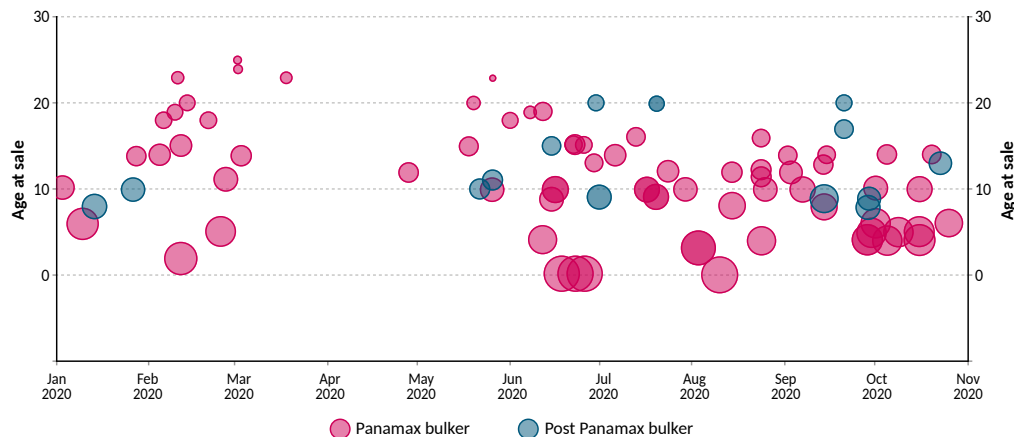
## Deals done – activity

The pandemic halted sale and purchase activity – mainly in the bulk sector, during the months of March and April. This pattern was not found to the same extent in sales of tankers or box ships.

By June, activity picked up – this was the result of a freight market U-turn that saw a loss-making spot market turn profitable. The raging craves for stocking up on all dry bulk commodities (except coal) from China – brought back optimism to the Sale and Purchase market too.

Deals are done for all ages of ships, but with a slim preference for tonnage aged 10 years or below, as it can clearly be seen in the below chart.

### Sales in sector 2020



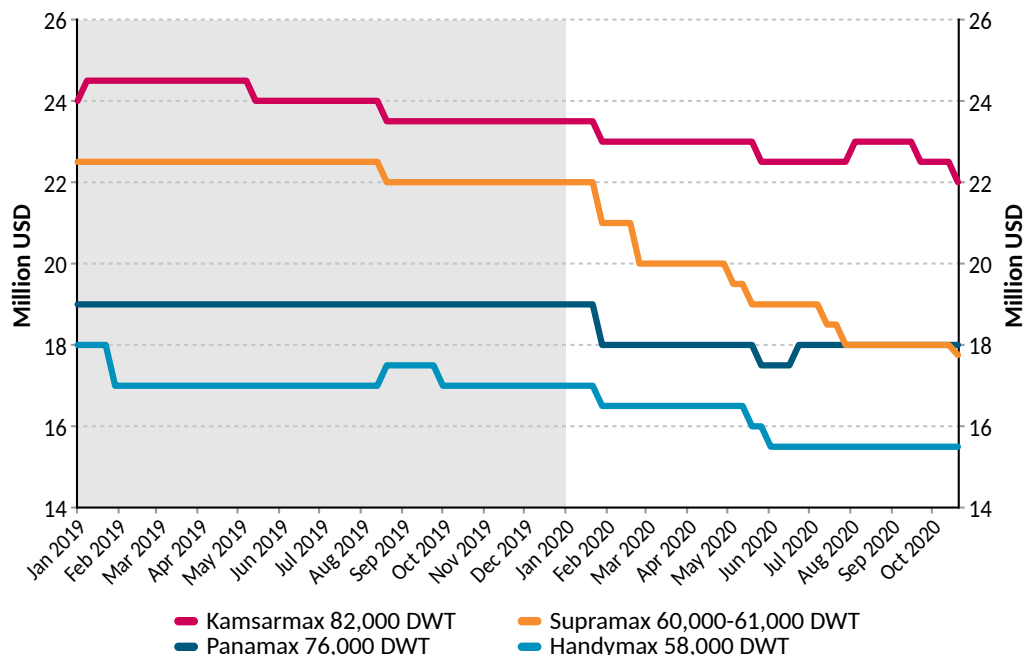
Source: BIMCO, VesselsValue

Note: Each bubble represents a sale; the size of the bubble indicates the price; a darker bubble indicates an en-bloc sale.

## Prices have slid since early 2019

Whereas the 5-year old Panamax 76,000 DWT has only seen value fall by USD 1 million (-5%) since early 2019, the Kamsarmax 82,000 DWT has lost USD 2½ million, equal to -9%. The former could be an indication of a market with a liquidity much below the normal levels, whereas the latter may be closer to a real market price. For year-to-date sales, we have mostly seen Supramax bulkers being traded – 114 in total. The faster decline in prices have naturally spurred the interest from buy-side investors.

### Second-hand prices for 5 year-old bulkers 2019-2020



Source: BIMCO, Clarksons





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## Quo Vadis?

As the steady decline in values continues, deals will be done along the way. But if a sharp decline comes around as the demand picture remains challenged or even worsens going into 2021, deals are likely to dry up for a while – until more certainty and clarity about the future appears.

## Would you go and buy yourself a tanker right now?

Yes, is the most likely reply you will get when it comes to crude oil tankers, whereas the opposite seems to be the case for oil product tankers. Crude oil tankers are in higher demand than oil product tankers. Even Aframax crude carriers had been in higher demand than the product carriers of the same size, LR2. According to VesselsValue, 48 Aframaxes crude oil tankers have been sold in 2020 by the end of October. This compares to 21 LR2 oil product tankers. Obviously, the fleet of Aframax'es has doubled up, but the tendency is for more Aframax deals this year-to-date than the whole of last year, with an opposite trend for LR2.

## MRs are no longer in fashion

233 MRs tankers changed hands in 2019. This year, only 107 MRs have been traded. As the industry approached the IMO 2020 sulphur cap deadline on 1 January 2020 – owners were split, between those that bet on a boost in demand from this regulation, and those that perceived the deadline as a final call for “selling on the rumours – buying on the facts”.

Some ship broker reports had bullish bets on how much of a boost this would become for owners. These higher estimates were then topped by investment banks giving out “advices” to the industry based on ridiculously high demand expectations – some as high as +30%. They may just have given advice on how much money they would make themselves, by telling mega-bullish stories.

The finer details of sale and purchase activity for MRs this year, show a particular interest in ships aged between 10 and 15.

## Price developments

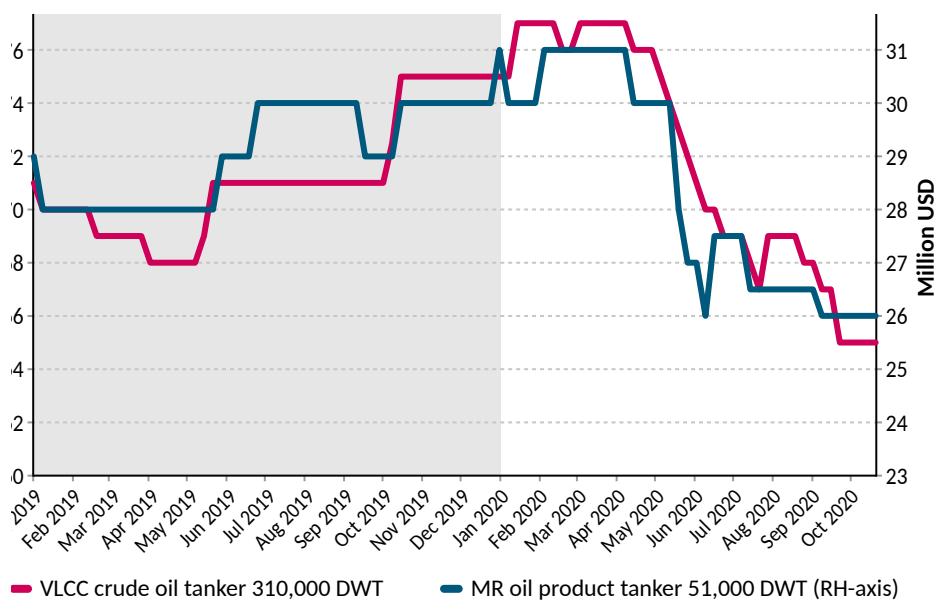
### Second-hand prices for 5 year-old tankers 2019-2020

Whereas the lower prices for a Medium Range (MR) tanker in a combination with the crossing of the IMO 2020 sulphur cap deadline have dented the interest from buyers and sellers, it's a very different story for VLCCs.

The finer details of sale and purchase activity for VLCCs this year, reveal a particular interest in brand-new ships, done as a resale directly from yard, a purchase of a newbuilding for delivery in 2021, or a 2019-built. At the other end of the scale, several deals have also been done for 20 year-old VLCCs due for special survey and a dry docking.

As always, the Greek ownership has been active, selling 16 units – the most by any nation – while buying 14. Singaporean interests have also been busy in the market, while the South Koreans have been involved in 4 deals on both sides, as four 2019-built with a 10 year charter to Caltex was concluded.

In general, tanker asset values have declined across the sub sector by some 15% to 20% since the start of the year according to VesselsValue.



Source: BIMCO, Clarksons



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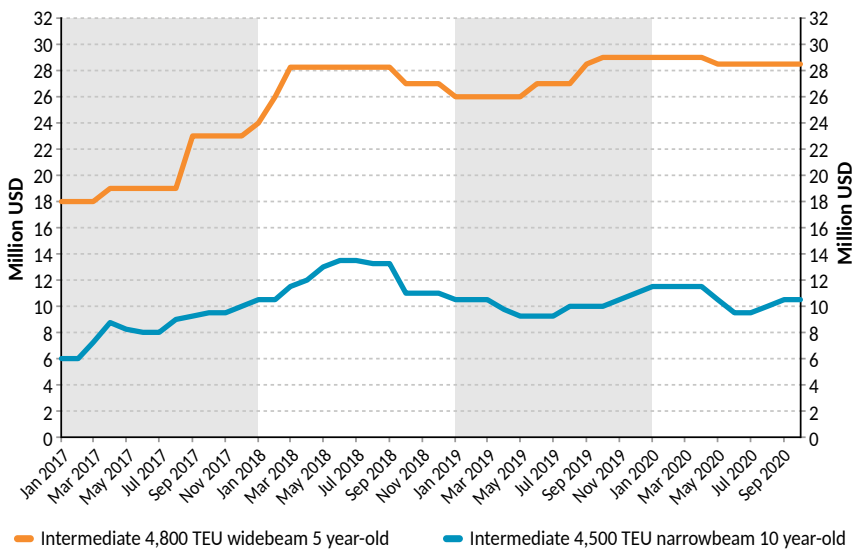
## Would you go and buy yourself a containership right now?

Well, that depends ... everyone loves to talk about the shipping markets and that being a ship owner must be heaven. But then again, you need to get the timing just right.

Amongst the three main shipping sectors, the prices for containerships have been the least volatile but market developments have also been splitting the sector in two. According to VesselsValue, the value of larger containerships has gone up, whereas the value for mid-sized and small-sizes ships have declined. Not by a lot if you look at it year-to-date, and not as much as prices for the same size and same age ships back in 2016. But the evaporation of demand for transportation and the subsequent record-high idling of ships, saw the charter market freeze over. As charterers were nowhere to be found, and charter-rates were cut rapidly, asset values headed south too.

In line with the gradual return of demand from the second quarter abyss, second-hand prices also stabilised.

### Second-hand prices for containerships



Source: BIMCO, Clarksons

### Buyers favour Post-Panamax tonnage

Second only to the Feedermax sector (500-1,250 TEU) last year, Post-Panamax ships (3,000-10,074 TEU with a beam larger than 32.2m) are topping the chart this year. Out of the 176 deals done in total year-to-date, a quarter of them were upper-mid-sized ships, according to VesselsValue.

Nevertheless, it has been a quiet year for the containership sale and purchase market. 400 deals were done in 2017, 272 in 2018 and 237 last year. 2020 is heading for four-year low activity level.

### Quo Vadis?

The market for containerships is heading into largely unknown territory. 2020 has

been an extreme, 2021 is likely to be that as well, but for other reasons. As the world is only gradually and at a steady pace getting back to an everyday life. An everyday life that would also include more steady, forecastable, and reliable volumes.

The sale and purchase market is at the mercy of the freight market, the dominant market in the world of shipping. You can forget about the newbuilding market and the demolition market too – it is the freight market that sits at the centre of our universe.

So where does BIMCO see the container shipping market in 2021? In terms of volumes, we could still be moving lower volumes than we did in 2019. The World Trade Organisation forecasts World Merchandise Trade will fall by 9.2% in 2020, while the recovery of trade in 2021 will only see growth at 7.2%, meaning it will remain well below the pre-pandemic trend. For container shipping this represents a challenge. For ship owners looking at the composition of their fleets, how much of it should be owned, how much of it should be charter-in tonnage, changing and uncertain market conditions like this do not make for a red hot sale and purchase market.

### Can we blame the short fall of deals on a lack of ship finance?

No, we cannot, for better and for worse, the financing of ships, newbuilding, second-hand or sale-and-lease-back deals has always been available. Maybe not always at the price that you would have expected but it has been there all along. It has moved from Europe to Asia, some banks have defaulted on the way, and new setups have emerged. The shipping industry is never a dull place.



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# Commodities

From production to seaborne transport and consumption

## DRY BULK CARGOES

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### COAL

#### Slight decrease in Chinese production

Chinese raw coal production decreased slightly in September, according to the National Bureau of Statistics of China. In September, the production of raw coal was 330 million tons, a year-on-year decrease of 0.9 percent. The rate of decrease was 0.8 percentage points more than the previous month; the average daily output was 11.04 mil-

lion tons, with an increase of 530 thousand tons on a month to month basis. From January to September, 2.79 billion tons of raw coal were produced, down 0.1 percent year on year.

Coal imports continued to decline. In September, coal imports stood at 18.68 million tons, a month-on-month decrease of 1.98 million tons, a year-on-year decrease of 38.3 percent; from January to September, imports reached 240 million tons, a year-on-year decrease of 4.4 percent.

The trading price of port coal rose. On October 9th, the coal prices of 5500, 5000, and 4500 kcal at Qinhuangdao Port were 578, 524, and 466 yuan per ton, respectively, which were 29, 29, and 27 yuan higher than those on September 4th.

#### Increase in Australian prices

Australian thermal coal prices rose in September by 8.9% m-o-m, to average \$54.6/mt, supported by the announcement of lower supplies by some

Edited by:  
**Giannis Theodoropoulos,**  
**Michalis Nikolaou**





Australian mine operators, including Glencore, to help stabilize the market, OPEC says in its October report. This has occurred at a time when the pace of Chinese coal imports has started to slow, particularly over the last couple of months, as production has recovered, and import curbs are expected in the months ahead.

## IRON ORE-STEEL

### **Demand: A more optimistic outlook**

The World Steel Association released an update to its Short-Range Outlook (SRO) for 2020 and 2021. This SRO is much more optimistic than the previous SRO finalised in June. While still showing a decline in demand for 2020, the decline is much smaller than previously expected.

In 2020 the Association forecasts that steel

demand will contract by 2.4%, dropping to 1,725.1 Mt due to the COVID-19 pandemic. In 2021 steel demand is expected to recover to 1,795.1 Mt, an increase of 4.1 % over 2020. A strong recovery in China will mitigate the reduction in global steel demand this year. The post lockdown recovery in steel demand in the rest of the world has been stronger than was earlier expected, but it still marks a deep contraction in 2020, both from developed and emerging economies, with only a partial recovery expected in 2021.

China's strong recovery since late February, which continues at a steady pace, suggests positive GDP growth in 2020 despite a 6.8% contraction in the first quarter.

During the January-August period, investment in real estate was up 4.6% y-o-y, and infrastructure investment recovered to the level of last year. In August, the mechanical machinery and automotive sectors showed a y-o-y growth of 10.9% and 7.6%, respectively. As a result, the mechanical machinery sector's output during January-August surpassed that of 2019 (+1.2%), while automotive production is still 9% below the 2019 level. With retail sales also catching up in August, the Chinese economy is rapidly approaching full normality.

China's steel demand is expected to increase by 8% in 2020, aided by government infrastructure stimulus and a strong property market. In 2021, steel demand is expected to stay flat as a result of the following two forces. First, the infrastructure and housing projects initiated in 2020 will continue to support steel demand in 2021. On the other hand, if the economy shows a full recovery, the government is likely to reverse its stimulus policy to cool down the construction sector. Given the outlook for a weak global economy in 2021, the manufacturing sector's rebound will be limited.

### **Recovery at risk?**

Rio Tinto recently released its third-quarter production results, noting that global economic activity in the third quarter was generally strong, helping to sustain optimism for a widespread recovery in 2021.

However, recent high-frequency data suggests that the rate of recovery in growth is slowing in most economies, with pent-up demand dissipating, and the rise of renewed lockdowns threatening recovery. In addition, Rio Tinto said that commodity demand in China has been supported by commodity-intensive stimulus measures. Chinese iron ore demand is at record levels against a backdrop of recovering seaborne supply that was disrupted earlier in the year. However, with the major producers expected to deliver strong volumes in the fourth quarter, iron ore inventories are expected to grow modestly as China's steel consumption eases from record highs and scrap consumption increases. Japan, South Korea, Taiwan, and Europe continue to show signs of recovery: however, ex-China steel production remains down significantly year on year.

According to the company, the automotive sector continues to experience recovery, supporting some demand for Value-Added aluminium products (VAP), but remains below pre-COVID-19 levels globally. Copper prices reached a two-year high with strong Chinese consumption supporting cathode imports. COVID-19 related supply disruptions remain at 4% of annual copper supply, in addition to normal industry supply disruptions.



## GRAINS

### Brazil expects record harvest

The new harvest in Brazil should surpass the record numbers of 2019 by 4.2%. According to a survey on the 2020/21 grain harvest published by the National Supply Company (Conab) of Brazil on Thursday 8 October, production is estimated at 268.7 million tons, surpassing the record of 257.7 million tons from last year's harvest by about 11 million tons.

Soy production is estimated at 133.7 million tons, maintaining Brazil as the world's largest oilseeds producer. The total corn harvest is expected to reach 105.2 million tons, also the largest in the historical series - an increase of 2.6% over the previous one.

The area cultivated with rice is expected to increase by 1.6%, but the Conab team estimates that productivity may not be as good as that of the last harvest. If the reduction of 4.2% in the harvested volume per hectare is confirmed, national rice production will reach 10.885 million tons, corresponding to the expected consumption. Grain exports, in turn, may decrease by around 400 thousand tons.

Bean production is spread over three harvests and, for this reason, may require greater adjustments than other crops throughout the year. The stimulus for a harvest is influenced by the results of the previous harvest. Based on the current data, Conab estimates that production will be similar to consumption. The area may slightly increase, but productivity may decline. The sum of the three harvests is expected to reach 3.126 million tonnes in the balance sheet, suggesting a 3.2% decrease compared to last season.

## WHEAT

### Recent estimations for global production, consumption, and trade

The U.S. Department of Agriculture (USDA) recently published the monthly report "World Agricultural Supply and Demand Estimates" for October. The

outlook for 2020/21 U.S. wheat that month is for reduced supplies, higher domestic use, unchanged exports, and lower ending stocks. Supplies are reduced by 32 million bushels on the combination of lower beginning stocks and production, as indicated by the NASS Grains Stocks and Small Grains Annual Summary reports, respectively. Partly offsetting are lower imports, with all the reduction for Durum. Domestic use is raised 10 million bushels, all on higher feed and residual use. Exports remain at 975 million bushels due to offsetting by-class changes. Projected ending stocks are reduced by 42 million bushels to 883 million, which would be the lowest ending stocks in six years. The season-average farm price is raised \$0.20 per bushel to \$4.70 on reported NASS prices to date and expectations for futures and cash prices for the remainder of the marketing year.

The 2020/21 global wheat outlook is for larger supplies, increased consumption, greater exports, and higher stocks. Supplies are raised 2.2 million tons to 1,072.5 million, mostly on Russia's production, increasing 5.0 million tons to 83.0 million, which is the second-largest crop on record, following 2017/18. The increased production is based on updated harvest results, as reported by Russia's Ministry of Agriculture, which implies record-high spring wheat yields. Russia's increased production more than offsets reductions in Ukraine, Canada, Argentina, and the United States.

Ukraine's production is lowered 1.5 million tons to 25.5 million, based on Ukraine's State Statistics Service estimates. Canada's production is reduced by 1.0 million tons to 35.0 million, primarily on the updated Statistics Canada forecast issued September 14. Argentina's production is lowered 0.5 million tons to 19.0 million on continued dry conditions in some regions.

World consumption is increased fractionally to 751.0 million tons, primarily on higher feed and residual usage for Russia and greater food, seed, and industrial use in Pakistan and the EU, more than offsetting lower feed and residual use for Ukraine and Canada. Projected 2020/21 global trade is raised 0.5 million tons to 189.9 million on higher exports for Russia, more than offsetting reductions for Argentina and Ukraine. Russia's exports are raised 1.5 million tons to 39.0 million, the second-highest on record. The largest import changes this month are for China and Pakistan, each raised 0.5 million tons. China's imports are raised on a strong early pace and are now 7.5 million tons, making China the third-largest global importer for 2020/21.





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## WET BULK CARGOES

### CRUDE OIL

#### Global supply and demand: A fragile environment

The International Energy Agency (IEA) recently released its Oil Market Report (OMR) for October 2020.

Global supply fell 0.6 mb/d to 91.1 mb/d in September, down 8.7 mb/d on 2019, as the UAE slashed output and maintenance cut flows in the North Sea and Brazil, more than offsetting a US rebound from August's hurricane shut-ins. The IEA forecasts that in 4Q20, world supply may rise towards

92 mb/d from 91.3 mb/d in 3Q20 if Libyan output continues to recover and assuming OPEC+ produces according to its target. Total non-OPEC supply is set to drop by 2.6 mb/d in 2020 before recovering by 0.4 mb/d in 2021.

Global oil demand rose 3.4 mb/d month-on-month (m-o-m) in July, as coronavirus restrictions eased and summer holidays in the northern hemisphere supported a rise in transport fuel demand. However, a second wave of Covid-19 cases and new movement restrictions are now slowing demand growth. The IEA's 2021 forecast is also largely unchanged at 97.2 mb/d, showing a gain of 5.5 mb/d from 2020.

Strong gains in global refinery throughput in July and relatively stable runs in August and September came at the cost of steep falls in margins, which in 3Q20 saw one of their worst quarters. In 4Q20, demand and refining forecasts imply large product stock draws, but refinery margins may not get an immediate boost. In 2021, runs will rebound only partially, to levels last seen in 2015. The IEA says that the outlook remains fragile. The trajectory for Covid-19 infections is strongly upwards in many countries, and governments are tightening restrictions on their citizens' movements. This surely raises doubts about the robustness of the anticipated economic recovery and, thus, the prospects for oil demand growth. Reflecting new data, the IEA has revised down its demand estimates for the third quarter of 2020 (-0.2 mb/d), with weakness seen particularly in North America (including Mexico) and India. The overall demand estimate for 2020 is largely unchanged at 91.7 mb/d (down 8.4 mb/d versus 2019), as is the estimate for 2021 at 97.2 mb/d, (up 5.5 mb/d year-on-year).

The agency's global demand and supply estimates (including an assumption of full compliance with the OPEC+ agreement) imply a significant stock draw of 4 mb/d in the fourth quarter. While this is a large change, it is happening from record-high levels. With the 1.9 mb/d increase in the OPEC+ production ceiling currently planned for 1 January, there is only limited headroom for the market to absorb extra supply in the next few months. Also, there is a risk that the demand recovery is stalled by the recent increase in Covid-19 cases in many countries.

The uncertain outlook that could see the draw-down of stocks falter is reflected in the fact that physical prices have weakened, and this has brought down the front of the forward curve for Brent crude oil. The longer-term offers little encouragement for the producers; the curve shows prices not reaching \$50/bbl until 2023.



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### Oversupply and large inventories remain a concern

The International Monetary Fund (IMF) recently published its update on the Regional Economic Outlook for the Middle East and Central Asia, with projections on oil prices for the rest of 2020 and 2021, as well as forecasts on the economies of the region.

According to the IMF, oil-exporting countries were hit hardest by a double-whammy of the pandemic and the resulting sharp decline in oil demand and prices. After dropping to 20-year lows between March and April, the Organization of the Petroleum Exporting Countries and other major oil producers (OPEC+) agreement in April and extension in June (which entailed oil production curtailment) succeeded at stabilizing oil prices, which have recovered more than 50 percent of the losses suffered since the end of 2019 but still currently trade at 40 percent below pre-COVID-19 levels. With the plunge in oil prices and output, available data point to a collapse in oil revenues during the first half of 2020, approaching a maximum of 50 percent (for Iraq).

In the short and medium-term, oversupply and large inventories remain a concern. At the same time, demand continues to be dampened by low air traffic volume (despite recovering road traffic), the fund added. Oil futures curves indicate that prices are expected to increase toward \$48 a barrel in the medium term (from \$41 for 2020), remaining some 25 percent below the 2019 average.

## LIQUIFIED NATURAL GAS (LNG)

### An overview of supply and demand

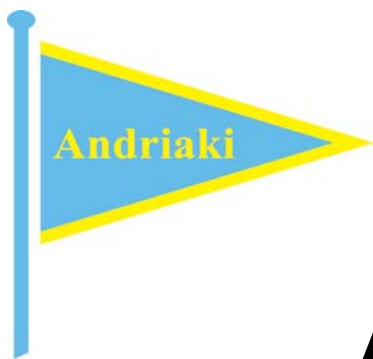
In September, the Henry Hub natural gas index declined on average by 16.3% m-o-m to \$1.9/mmbtu, with sharp intra-month price swings, as mentioned in the OPEC's Oil Market Report - October 2020. Tropical cyclones in the Gulf of Mexico have limited LNG exports, while at the same time, they have temporarily reduced demand in the impacted areas. However, according to IHS Markit estimations, these cyclones also translated in production curtailments, which added to an already lagging production – down by around 8% y-o-y in the last week of the month. However, toward the end of the month, prices were supported by the prospect of stronger LNG exports due to reports of a smaller number of cargo cancellations for October, with price differentials becoming supportive over the last two months. According

to the Energy Information Agency, utilities added 76 bcf to working gas underground storage during the week ending 25 September. This injection left total working gas in underground storage at 3,756 bcf, which was 12% above the last five-year average. At the end of the last week of August, inventories were 13.4% above the latest five-year average.

Natural gas prices in Europe rose strongly for the second consecutive month. The average Title Transfer Facility price rose by 38% m-o-m to 3.95/mmbtu. As mentioned in previous reports, there were lower LNG imports, especially from the US, and reduced pipeline deliveries from Norway and Russia, partly due to maintenance. This reduced the pace of inventory additions, which were already close to full in some locations. According to Gas Infrastructure Europe, inventories ended the month of September around 94.7% full, up from around 91% at the end of August. However, this level is below the 96.8% seen at the end of September 2019. In Asia, the expectation of a colder-than-average winter due to La Nina and, as mentioned in previous months, reduced supplies due to safety reviews at Australia's largest LNG facility supported Asian LNG prices.







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# Port State Control and Ship Inspections:

## Lessons Learned during the Covid-19 pandemic



During the last few months, humanity has been experiencing unprecedented challenges, as a result of the Covid-19 pandemic. The shipping industry could not be an exception, and although it played a catalytic role in the uninterrupted flow of goods around the world, it faced major distortions.

The inability to perform crew changes, alterations in the vessels' operational management, and closed ports were but a few of the challenges facing the entirety of the industry's stakeholders. In that particular context, *Naftika Chronika* sought the views of executives from the world's top Flag States on the lessons learned from this crisis, as well as the challenges and opportunities that may arise from it.

The views of the executives are presented in alphabetical order in the next few pages.





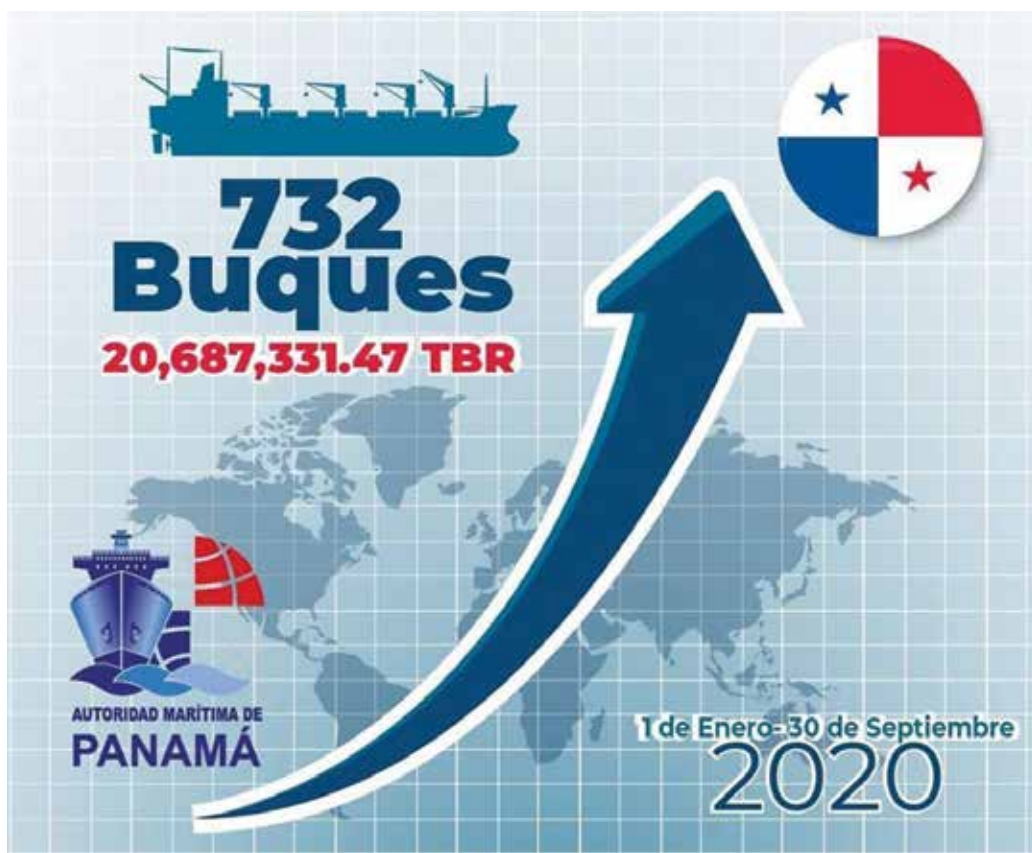
## Digitalization is a key element in maintaining optimum services in these exceptional times

by H.E. the Ambassador and General Consul of Panama to Greece  
Mrs. Julie Lymberopulos,  
and the Panama Maritime Authority

The COVID-19 pandemic gave the shipping industry the opportunity to identify which flag administration has enough experience, readiness, and a worldwide network to keep providing the necessary services to all their clients during the global crisis. The Panama Ship Registry, as a worldwide leader, demonstrated that it was prepared by taking the immediate actions required to stay fully operational while part of its staff worked remotely. The restrictions on movement, equipment shortages, and sometimes the financial difficulties caused by the pandemic, have definitely impacted the maritime world. Most of the maritime

industry sectors, like design, construction, marine insurance, cargo movement, maritime administration, ship operators, managers, and port operators, have been affected.

As a state-owned institution, we took action fast. The Panama Flag Administration announced its policy on Remote Surveys and Remote Inspection Techniques to help our flag partners to continue complying with the IMO regulations during these special circumstances. It is important to point out that flag, class, and port state inspections are part of the safety barriers that prevent incidents and accidents in our industry. The available state of





the art technologies and solutions enabled us to implement advanced procedures and techniques for the performance of remote surveys and audits as an alternative means of controlling and monitoring our fleet's compliance. The implementation of remote surveys by some Classification Societies has temporarily ensured compliance with the applicable international requirements regardless of the vessel's geographical location. New tools and equipment are now required, and new training and knowledge must be put in place to open the door to new business models regarding the inspections/surveys.

Regarding inspections to determine a vessel's general operational condition and seaworthiness, our flag demonstrates that remote inspections are an alternative - a tool that may be considered under special circumstances on a case by case basis; they will never replace physical attendance on board. Both are now 100% digital, just like the already existing electronic technical certificates, and have the proper verification of authenticity metrics, with a QR code that can be read from any mobile application. It is worth mentioning that there are Classification Societies/ROs that are duly authorized to issue electronic statutory

certificates on behalf of our Administration. Digitalization is a key element in maintaining optimal service in these exceptional times.

The Covid-19 pandemic has brought challenges to almost all business models around the globe, and ship registries were no exception. We need to collect information from the existing cases to assess and determine the effectiveness of remote surveys together with the incidents and accidents reported during this period. The experience accumulated in recent months has advanced new tools and equipment, which, with new training and knowledge, will open the door to developing new regulations or updating the existing ones.

During this unprecedented time of crisis, the Panama Ship Registry has continued to grow and has maintained positive numbers. During the first half of 2020, Panama registered 284 newbuilds that have contributed 12.3M gross tons (GT) to its fleet, which totals 227M GT.

The General Directorate of Merchant Marine of the AMP (DGMM) has remained 100% operational throughout the months of the global pandemic; it has doubled its efforts to speed up processes and continue providing its users with the necessary support in the shortest possible time.



# Liberia & Vessel Support under COVID-19 – Port State Control

by **Michalis Pantazopoulos,**

Senior Vice-President & Managing Director of the Liberian Registry in Greece

## Liberia's Guidance Port State Authorities and PSC MOUs due to COVID-19

The Liberian Registry undertook a major effort to inform port State Authorities and PSC MOU's about the Liberian Administration's implementation of the Circular Letter No.4204/Add.I, issued by the IMO Secretariat on 19 February 2020 to assist shipowners, operators, masters, and recognized organizations that may be experiencing difficulty in conducting operations due to the impacts on the shipping industry resulting from the sudden and rapid COVID-19 outbreak.

The Administration has received numerous reports from shipowners, operators, masters, and recognized organizations encountering difficulties in conducting operations. These difficulties include restricted access to shipyards and ports for inspectors, auditors, surveyors, and crews, which could result in delays in conducting statutory surveys, audits, inspections, crew changes, etc., to maintain the validity of certificates and compliance with regulations.

Liberia's guidance to assist with the impact of COVID-19 also includes the following:

1. Audits under the International Safety Management (ISM) Code affecting the validity of the Safety Management Certificate (SMC);
2. Audits under the International Ship and Port Facility Security (ISPS) Code affecting the validity of the International Ship Security Certificate (ISSC);
3. All statutory surveys under SOLAS 74, MARPOL 73/78, BWM Convention 2004
4. STCW Convention 1978, as amended
5. Maritime Labour Convention, 2006

The Liberian Administration has, on several occasions, requested the understanding and cooperation of Port State authorities during this challenging and uncertain period that shipowners, operators, masters, and recognized organizations are experiencing.

## Liberia's Cooperation with PSCs

We work closely with port state authorities globally in order to ensure the proper and consistent implementation of IMO regulations aiming to add a new dimension to our organization's global activities and support efforts to ensure a level playing field for international shipping. Furthermore, a constructive relationship with port state authorities can also help pave the way for a quick resolution to possible misunderstandings during port state control inspections and thereby be of great assistance and importance to our shipowners to avoid or minimize downtime in their ships' operation.

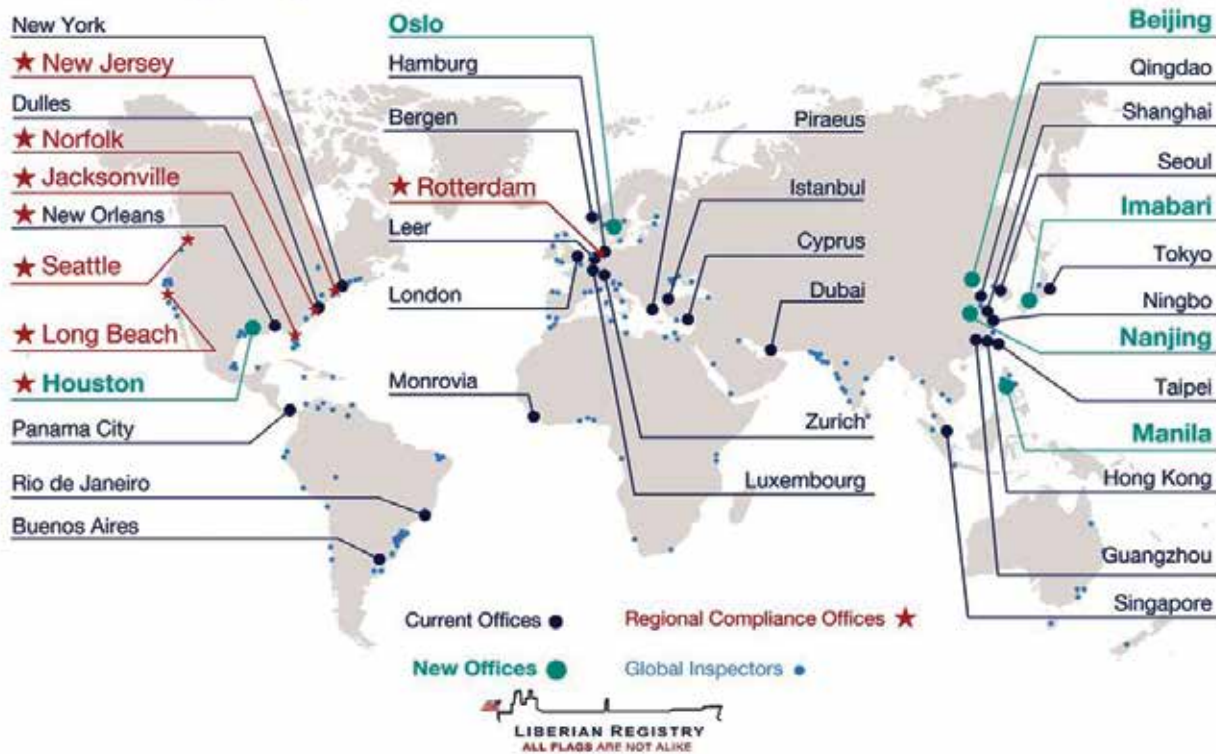
The most critical issue amidst the COVID-19 pandemic has been crew changes. The Liberian Administration has taken a pragmatic approach on this issue, and any application to postpone a seafarer's annual leave so that they can continue to be engaged under the seafarer's employment agreement for more than 11 months, which is directly linked to the disruption caused by COVID-19, is being considered with the cooperation of shipowners or operators. However, we have encountered several local port authorities which apply a strict approach that does not assist vessel operations.

## Detention Prevention Programme

The Liberian Registry has developed and released a dynamic Detention Prevention Programme



# Liberian Registry Global Network



1

(DPP), an automated Port State Control (PSC) risk assessment system that focuses on preparedness before Liberian vessels enter a port. This valuable tool and platform is offered to Liberian-flagged ships free of charge. The system aggregates data from across the industry, including Flag State data, Port State data, and Class Society data, for a PSC risk analysis of its entire fleet.

The system calculates and assigns a PSC boarding risk category to all 4,500+ Liberian-flagged vessels, which allows Liberia to focus its efforts on vessels that are more likely to have a PSC boarding, detention, or deficiency. The score for each vessel adjusts in real-time based on the port in which the vessel is entering. For instance, a vessel may be categorized as low risk for boarding in Singapore, while the same vessel may be high risk for boarding in Houston. Each PSC MoU, each country, and each port has its own specific requirements and its own PSC trends that the system takes into account when determining a vessel's risk score.

## Regional Compliance Managers

The Registry has also expanded its global support of vessels, owners, and seafarers by appointing USA Regional Compliance managers strategically

located in the United States' main ports. Currently, Regional Compliance Managers are in Houston, New Orleans, Seattle, Jacksonville, and Virginia/Mid-Atlantic. Each Compliance Manager provides 24/7 support to vessels entering their respective region. The plan is to set up additional Global Compliance Centers, including Australia, Rotterdam, and have several additional ports in China join the Registry's already extensive global network of full-service Regional offices.

Liberia's Fleet PSC Performance staff based at its headquarters in the USA, in conjunction with the specially trained exclusive auditors and regional compliance managers, have aligned compliance efforts to ensure Liberian-flagged vessels and crews are as prepared, compliant, and safe as possible.

## Maritime Anti-Corruption Network (MACN):

Liberia was the first flag state to join the Maritime Anti-Corruption Network; through its work with MACN, it developed an online facilitation portal that enables Liberian flagged owners and operators to report any cases of corruption they may encounter. Liberia is also closely focused on eliminating corruption as much as possible from the port state control process.



# The experiences of the Cyprus Maritime Administration during the COVID-19 pandemic

by **Adonis Pavlides**,  
Counsellor (Maritime Affairs), Marine Surveyor A' Maritime Office,  
Embassy of the Republic of Cyprus in Athens

In January 2020, the Cyprus Maritime Administration, as one of the largest flag states, started receiving notifications from owners and operators listing a number of difficulties encountered in fulfilling their obligations in relation to the safety, security, and environmental provisions of International Maritime Conventions.

As the pandemic evolved into a global crisis, the range of issues faced by the Shipping Deputy Ministry (SDM) extended to ships surveys, mandatory survey cycle and shipboard audits, and all other issues pertaining to crew changes.

SDM started accepting and extending the time for the mandatory drydocking, as stipulated by SOLAS, and allowed the postponement of drydocking and all necessary ISM and ISPS audits. At the end of March, due to the ever-increasing number of queries received, SDM issued a Circular aimed to provide guidance in a uniform manner.

The number of cases handled successfully since the spread of the pandemic amounted to approximately 150 exceptions, including exceptions for drydocking, cases of postponing annual mandatory inspection by authorized classification societies, or allowing the extension of mandatory shipboard ISM and ISPS audits. Furthermore, annual or in some cases renewal shore-based audits of ISM at the premises of the company of ships (Document of Compliance verifications) as well as internal and external ISM and ISPS shipboard audits (SMC and ISSC verifications) were conducted remotely by the recognized organizations or company's personnel, after being authorized by SDM on a case by case basis.

In July, SDM anticipated the possible re-start of cruises and prepared a guidance document for Cruise operators to consult. Unfortunately, due to the pandemic's negative developments and its consequences, the re-start of cruises has yet to materialize.

The introduction of innovative protective measures for RO-RO passenger vessels resulted in the re-start of regular operations, facilitating the transportation of vital goods such as medicines and food and the movement of passengers and workers, including key personnel. The requests for exceptions and the acceptance of alternative arrangements for such vessels to operate within the legal international shipping framework saw a new surge, which increased the SDM personnel's workload. The response was equally effective and efficient; thus, no Cyprus flag vessel has experienced any undue delay. SDM is committed to this objective as a guiding principle to its daily operations. SDM procedures continue to be in force as stipulated by SDM updated Circular No. 18/2020 issued on 18 August 2020 ([www.shipping.gov.cy](http://www.shipping.gov.cy)).

When it comes to port state control functions, the SDM, without compromising safety, adopted a pragmatic and flexible approach to ship inspections and certification, subject to the provision of the necessary evidence for an exceptional delay by the flag state.

Regarding the humanitarian crisis being caused by the spread of COVID-19 in the seafaring profession and its unfortunate consequences for thousands of seafarers who have to be relieved by facilitating crew changes and repatriation, Cyprus, as a leading naval nation, was one of the first countries worldwide to recognize seafarers as key workers and to introduce practical measures for crew changes.

Since May 2020, around 5000 seafarers have been repatriated or have been able to return to work through Cyprus. Cyprus has actively supported and implemented measures in line with the International Maritime Organisation and European Union recommendations.

Crew changes are possible in Cyprus, provided certain conditions are met. Cyprus remains committed to facilitating smooth processes when assisting individuals in getting back to their families.

SDM continues to adopt and implement procedures as necessary to support to the greatest possible extent safe and efficient shipping operations, ensuring the continuity of trade and well-being of seafarers.

Cyprus expresses its readiness to work together with all the other countries and the global shipping community to coordinate efforts towards relieving seafarers and facilitating crew changes.





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## The situation requires that the industry remain flexible and adaptable

by **Theofilos Xenakoudis,**

Director, Worldwide Business Operations, Managing Director-Piraeus, Greece,  
International Registries, Inc.

At the outset of the pandemic, rapid developments around the world posed immediate challenges to the global supply chain, which relies on the movement of people and goods. The Republic of the Marshall Islands (RMI) Registry remained fully operational and accessible to clients and focused on ensuring RMI registered ships continued to trade and conduct business around the world safely.

Early on, the RMI Registry encouraged all government agencies and industry stakeholders to recognize COVID-19 as a force majeure situation that necessitated flexibility. International Registries, Inc. and its affiliates (IRI), which provide administrative and technical support to the RMI Corporate and Maritime Registries, recognized that good communication between our offices, customers, and stakeholders around the world would be essential to keep the RMI fleet engaged in global trade. IRI also recognized that the situation would continue to evolve and created a webpage to communicate the latest COVID-19 guidance: <https://www.register-iri.com/covid-19/>. With 28 worldwide offices and technical experts stationed around the world, IRI was able to achieve a seamless transition of core functions between offices. While some offices, such as the Piraeus office, have maintained a rotating staff, many IRI team members are working from home. This flexibility in our management system was invaluable to our clients, allowing RMI flagged vessels to access technical support, operational support, and critical flag services at any hour or day. Global restrictions on people's movements have significantly impacted vessel safety and technical vessel inspections, making onboard physical inspections impossible in many cases. These inspections are required to support safe vessel

operations. Therefore, it was essential to rapidly find new ways to maintain our robust inspection regime to safeguard our crews and the environment and ensure compliance with national and international regulations. In March 2020, the RMI Registry issued Marine Safety Advisory (MSA) 13-20, which was then superseded by MSA 17-20, which allows for temporary alternative inspection arrangements when an in-person inspection is not possible. Under such circumstances, the regional Fleet Operations Manager reviews the vessel and company performance history and decides whether to reschedule the inspection for a later date or conduct it remotely with crew interaction. To date, IRI has completed nearly 700 remote inspections, some of which were conducted thanks to the use of digital technology.

The RMI Registry also issued a number of other critical guidance documents, including MSA 24-20, which allows for specific extension periods for statutory certificates and the flexibility to apply to the flag State for longer extensions under extenuating circumstances, and MSA 25-20, which offers guidance on handling the International Safety Management Code, International Ship and Port Facility Security Code, and Maritime Labour Convention, 2006 during COVID-19. These documents and more can be found on the COVID-19 page of the IRI website.

The pandemic may have changed the way business operates, but it hasn't changed IRI's flexible and solutions-driven team. With the emergency powers enacted under the Maritime Act, IRI has used virtual contingency plans to complete vessel transactions and has been able to conduct closings via video conference and accept electronic signatures thanks to its close working relationships with law firms, clients, and banks.

## 2017-2019 Detention Trends

	Flag State	Detention Ratio (%)
USCG	RMI	0.79%
	Liberia	1.24%*
	Panama	1.08%
Tokyo MoU	RMI	2.19%
	Liberia	3.01%
	Panama	3.31%
Paris MoU	RMI	1.54%
	Liberia	2.05%
	Panama	5.18%
AMSA	RMI	4.23%
	Liberia	7.46%
	Panama	6.02%

"The Coast Guard targets Flag Administrations for additional Port State Control (PSC) examinations if their detention ratio scores higher than 1.08% and if an Administration is associated with more than one detention in the past three years."

Sources: (from top to bottom) United States Coast Guard (USCG) 2019 PSC Annual Report, Tokyo Memorandum of Understanding (MoU) 2019 Annual Report, Paris MoU Flag Performance Lists 2017-2019, and Australian Maritime Safety Authority (AMSA) PSC Australia 2017-2019 Reports.

\* Revised USCG 2019 PSC Annual Report.

## AMSA Flag States With Highest Detention Rate

Flag State	Years	Detention Ratio (%)
Antigua and Barbuda	2019	13.3%
Cayman Islands	2019	10.3%
Cyprus	2019	9.1%
Philippines	2019	9.1%
Denmark	2019	8.3%
Malaysia	2019	8.3%
Liberia	2019	6.7%

## USCG QUALSHIP 21 Flag State Comparison

	 RMI	 LIBERIA
2020	Yes	Targeted

## USCG QUALSHIP 21 Qualifying Flag States

Bahamas	Cyprus	Italy	Republic of Korea
Bermuda	Denmark	Jamaica	Singapore
British Virgin Islands	France	Japan	Switzerland
Canada	Germany	Marshall Islands	Taiwan
Cayman Islands	Gibraltar	Netherlands	Thailand
Croatia	Hong Kong	Norway	United Kingdom
	Isle of Man		



## Looking Ahead

As the world continues to face COVID-19, the situation requires that the industry remain flexible and adaptable. Many of the solutions we used early in the pandemic, including remote inspections, will be valuable tools for the future. Unfortunately, some challenges remain. The movement of seafarers continues to be a challenge that needs the critical attention of the world's governments and international governing bodies. The longer a seafarer remains on board a vessel, the higher the risk of injury and safety issues. The RMI Registry has called for seafarers to be recognized as key workers early in the pandemic, and we will continue this call to action.

Perhaps the most important lesson to be learned from this pandemic is that adaptability and flexibility remain critical for our industry. RMI flagged vessels have benefitted from IRI's decentralized structure and ability to seamlessly transition operations and technical support, allowing them to continue trading and conducting business. We must continue to look for new ways of protecting life, the environment, and our resources and ensuring the safe operation of vessels.



# Hard times ahead for Europe's maritime sector



by **Christophe Tytgat**,  
Secretary General, SEA Europe

Covid-19 has taken its toll on the global maritime industry. However, Europe's maritime sector has been hit the hardest.

Up until the emergence of Covid-19, the European maritime technology sector was in much better shape than that of Asia. Before the pandemic, Asian shipyards were suffering from significant overcapacity, weak demand, and flattened trade growth, while Europe was a global leader in complex shipbuilding and maritime equipment manufacturing. However, due to Covid-19, European shipyards and their supply chain are now being confronted with financial difficulties, problems with their workforce being able to cross borders to return to work, and late or delayed orders. In contrast, although many Asian companies have been able to restart their economic activities earlier than European companies, many of them are engaging in predatory pricing and benefitting from special Covid-19 support in order to survive the pandemic crisis. This support – on top of existing state aid, other financial incentives, and trade protectionism - has exacerbated Asia's competitive distortions to the detriment of Europe.





### A PANDEMIC CRISIS WITH A LASTING IMPACT

The difficulties encountered by European shipyards and the maritime equipment sector are expected to last at least until 2023 or 2024. With a further reduction in global trade, cargo and passenger transport, and tourism, it is expected that shipowners, including those operating cruise vessels, will postpone their investments in innovative green and digital ships until market confidence returns. Till then, European shipyards and the maritime equipment sector will need to survive the pandemic crisis.

### EUROPE'S GLOBAL MARITIME LEADERSHIP IS AT RISK

In 2017, a European Commission study concluded that "The next ten years will determine whether Europe's maritime technology sector can survive and grow or will decline and fail." <sup>1</sup> Due to Covid-19, Asia's competitive pressure on Europe has only but worsened, to the point that without any fast, adequate, and sectoral actions, Europe now runs a serious risk of losing its strategic maritime technology industry to Asia. Under such a scenario, Europe will be entirely dependent on the Asian shipping industry and shipyards for building, maintaining, retrofitting and equipping its vessels. Without its own fleet, Europe will depend on Asian ships and equipment to guarantee its security and defence, access to the seas, trade, and the Blue Economy, and will be unable to implement political ambitions such as the European Green Deal. Finally, without its own shipyards and maritime equipment industry, Europe will not

“

*Covid-19 has clearly demonstrated the geopolitical risks resulting from Europe's dependence on foreign nations. This is most certainly valid for Europe's strategic maritime technology sector.*

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manage to maintain its position as a global leader in complex shipbuilding and maritime equipment manufacturing, nor will it be a global maritime power. Besides the serious negative geopolitical consequences, this would have an extremely negative impact on the economic value of Europe's maritime-technology sector and the ability of Europe's maritime regions to create new jobs as many of them are indeed heavily dependent on local shipyards and their supply chain.

### *It is now time for adequate sectoral measures*

Covid-19 has clearly demonstrated the geopolitical risks resulting from Europe's dependence on foreign nations. This is most certainly valid for Europe's strategic maritime technology sector. Europe has a keen interest in investing in its own strategic maritime industrial eco-system, consisting of shipyards, maritime equipment manufacturers, and shipping-related services. Only in this way will Europe manage to remain a global maritime power and technological leader, a necessity in today's rapidly changing geopolitical and technological landscape. To that end, the European Commission needs to urgently adopt a strategic framework that stimulates fleet renewal across Europe, making significant investments in innovative green and digital commercial inland and seagoing ships as well as naval vessels and related maritime equipment, systems, and technologies. Equally, the European Commission needs to urgently introduce the appropriate framework conditions that will offer European shipyards and their supply chain a level playing field that is truly global and will enable the EU to act against Asia's long-standing competitive distortions.

1. "New Trends in Globalisation in Shipbuilding and Marine Supplies: Consequences for European Industrial and Trade Policy", BALance, October 2017.



# Technology & Shipbuilding

## The world's first VLGC to be fuelled by LPG

BW LPG announced the successful sea and gas trials for Very Large Gas Carrier (VLGC) BW Gemini, which has been retrofitted with pioneering LPG dual-fuel propulsion technology. BW Gemini has achieved a historic milestone as the world's first VLGC to be fuelled by Liquefied Petroleum Gas (LPG), with the retrofitted main engine running on LPG and switching to traditional fuel seamlessly.

The retrofitting process at Yiu Lian Dockyard in Shenzhen, China, took approximately 60 days and is estimated to have emitted 2,060 tons of carbon dioxide. This is approximately 97% lower compared to ordering a newbuilding with similar technology.

“Strong commitment by the Board and Management to sustainable business operations have translated to this milestone achieve-

ment. Heartiest congratulations to the talented people, both at BW LPG and our industry partners, who collaborated for years to deliver on a shared vision”, said Anders Onarheim, BW LPG CEO,

“LPG is powering our vessels while protecting the environment. With over 80 years of experience in LPG handling, we look forward to demonstrating

its benefits to the industry and prepare for the future of zero-carbon propulsion”, said Pontus Berg, BW LPG Executive Vice President (Technical and Operations),

Decarbonization is one of the industry's main challenges and a core commitment of BW LPG in the pursuit of sustainable development. Using LPG as fuel for propulsion is a pioneering and promising solution for sustainable shipping.

## A new LNG Fuel Gas Supply System

Mitsubishi Shipbuilding Co., Ltd., a part of Mitsubishi Heavy Industries (MHI) Group, was granted an Approval in Principle (AIP) from the French Classification Society, Bureau Veritas (BV), for a liquefied natural gas (LNG) fuel gas supply system (FGSS) for marine four-stroke dual-fuel engines. The certificate of AIP was recently presented at Mitsubishi Shipbuilding's headquarters in Yokohama.

The FGSS comprises an LNG fuel tank, gas supply

Edited by:  
**Stefanos Poulimenos**





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unit, control systems, and other relevant equipment. The FGSS to which the AIP was granted this time was developed mainly to be installed on coastal ferries and small to mid-sized cargo ships, based on not only experience and knowledge obtained through shipbuilding of LNG carriers for many years but also technologies and know-how accumulated by the development of FGSS products for large ships. The small size vacuum-insulated type tanks to be applied for the system have a double shell structure that ensures high heat insulation and allows the tank's external cylinder to be at normal temperature, which consequently simplifies the support structure of the tank and reduces the workload for the installation work. Further, the Tank Connection Space is also designed to save space while giving consideration to realize easy operation and less maintenance.

Mitsubishi Shipbuilding delivered its FGSS in 2019 to be installed on Japan's first LNG-fueled car carrier, currently being built at Shin Kurushima Toyohashi Shipbuilding Co., Ltd. and has one more order for the ship currently under construction. Those large tanks with insulation coatings are designed to be the best fit for the installation in large vessels.



### Electric solutions for higher efficiency and sustainability

Securing a contract from Daewoo Shipbuilding & Marine Engineering, ABB Marine & Ports will deliver the power and control technology for the two new Knutsen NYK Offshore Tankers (KNOT) shuttle tankers to future-proof them for the operations of tomorrow and enable the sustainability gains increasingly sought by energy majors.

The energy storage system was added at the request of the exploration and production company Energi that has contracted KNOT to operate the shuttle tankers. The system will improve ship performance by optimizing engine responsiveness, whatever the load.

"We have been fully aware of charterers' increased requirement for sustainability, so it was very important that our first commitment to battery power involved a supplier with a track record of delivering quality, safety and reliability to Knutsen, as well as service and remote expert support," said Tom Knutsen, Project manager at KNOT. "ABB has significant experience in shipboard energy storage systems, and we are pleased that, on top of cutting emissions, this technology will also reduce OPEX." Built to endure harsh Arctic waters, the pair of 124,000 dwt tankers is set to be delivered by the Daewoo Shipbuilding & Marine Engineering shipyard in 2022. The newbuild vessels will operate in the North Sea.

ABB's supply scope will also include the shaft generator system, main switchboards, thruster, and cargo pump drive systems, and take care of project management, commissioning, and sea trials.

The ABB twin battery package on board each Knutsen ship will have a storage capacity of 678k Wh. The energy storage system will ramp up engine responsiveness by working with the ABB MV AC system to control and optimize shaft generator power flexibility. The enhanced dynamic support for the energy storage system will be crucial in the event of sudden load changes, peak loading, including the specific demands of station keeping and cargo pump operations.

### TradeLens platform is expanding its network

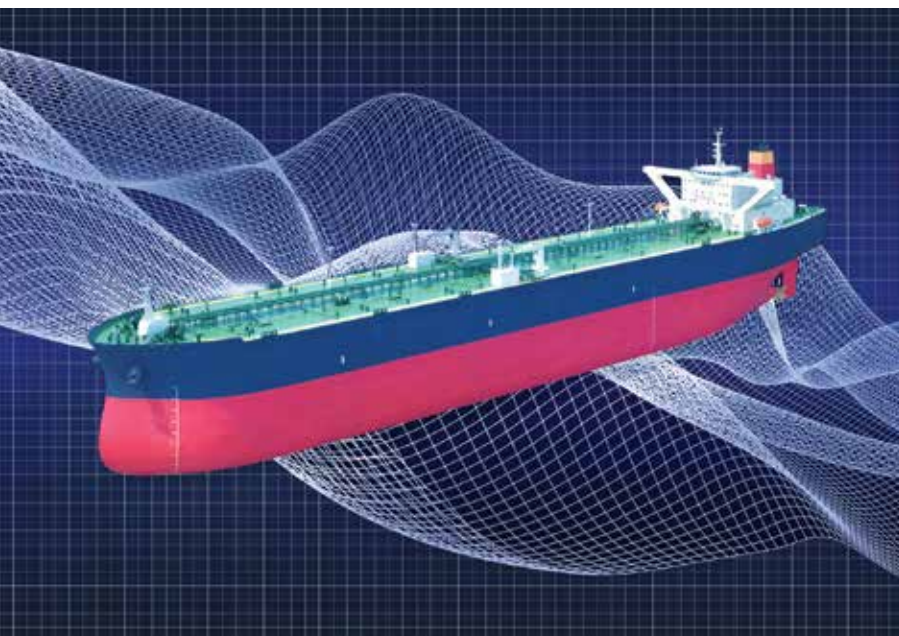
Global container carriers CMA CGM and MSC Mediterranean Shipping Company (MSC) are now integrated into TradeLens, helping ensure a more fully integrated, timely, and consistent view of logistics data for their containerized freight around the world.



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TradeLens was jointly developed by IBM and A.P. Moller - Maersk. Together with Maersk, CMA and MSC will act as platform foundation carriers with a role in expanding the ecosystem and platform operations, including playing key roles as validators on the blockchain network.

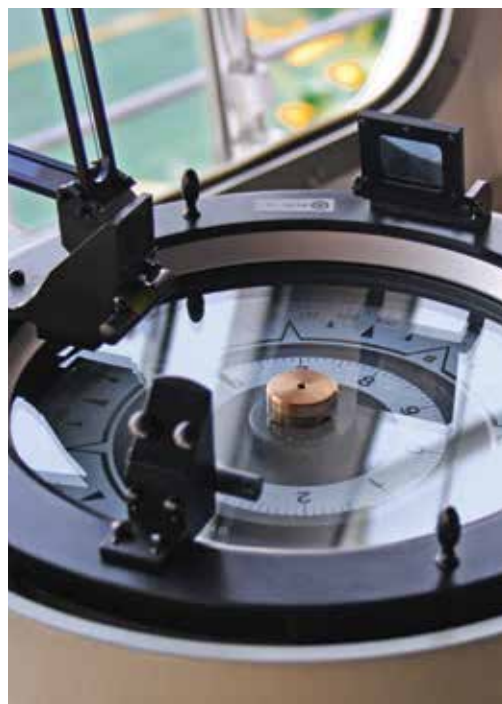
The addition of CMA CGM and MSC marks a crucial milestone for the industry, which has too often relied on paper-based trade and manual document handling, leading to increased costs and reduced business continuity. Maersk, MSC, CMA CGM, and IBM, together with the expanding TradeLens network of terminals, customs authorities and 3PL and intermodal providers, are ushering in a transformation designed to benefit all network participants by making it easier to quickly and more reliably share documents and shipping data and digitally collaborate.

TradeLens members use the platform to connect within the ecosystem and share information needed for their shipments based on permissions, without sharing sensitive data. TradeLens makes it possible to access data from the source in near real-time, boost the quality of information, provide a comprehensive view of data as cargo moves around the world, and helps create a secure record of transactions. Launched in 2018, the TradeLens ecosystem now includes more than 175 organizations – extending to more than 10 ocean carriers and encompassing data from more than 600 ports and terminals. It has already tracked 30 million container shipments, 1.5 billion events, and roughly 13 million published documents.

### A joint study on autonomous collision avoidance

Mitsui OSK Lines, Ltd. (MOL) signed a contract to conduct a joint study on collision avoidance algorithms and autonomous collision avoidance. The company is teaming up on the study with MOL Marine Co., Ltd., National Maritime Research Institute of National Institute of Maritime, Port and Aviation Technology, Tokyo University of Marine Science and Technology, MOL Techno-Trade, Ltd. and YDK Technologies Co., Ltd. The joint study aims to develop an advanced navigation support system that will lead to autonomous collision avoidance, using rule-based artificial intelligence and a deep reinforcement learning algorithm. This will enable systems to estimate several Obstacle Zones by Target (OZT) among different ships and propose a route that minimizes the risk of a collision.

Demonstration testing with Tokyo University of Marine Science and Technology's Shioji Maru has been conducted in congested sea areas such as Tokyo Bay as a part of continuous efforts to develop computational algorithms using OZT and avoidance route computational algorithms. The test confirmed the ability to estimate OZT targeting several ships in actual operation and develop and suggest avoidance routes in real-time onboard. It verified the system's effectiveness in supporting collision avoidance. The test also aimed to develop a collision-avoidance system that realizes medium-to-long-term strategies for avoidance navigation well before target ships pose a risk in congested sea lanes and takes into consideration the experience of maritime officers and other personnel in terms of safety and security.







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BY **THOMAS  
MILLER**



# Latsco Shipping Limited

“Hellas Dynasty”,  
“Hellas Voyager”

Latsco Shipping Limited has enhanced its fleet of LPG carrier newbuildings with two additional vessels. The “Hellas Dynasty” and “Hellas Voyager” were integrated into the company’s fleet in March and May of 2020, respectively.







## “Hellas Dynasty”, “Hellas Voyager”

### Latsco Shipping's latest newbuilding acquisitions

With a capacity of 80,000 cbm, both vessels are equipped with two high-capacity propane compressors and a butane condenser to achieve faster loading rates and significant energy savings. An HPSCR system based on 3.5% HFO, a ballast water treatment system, and more, ensure compliance with the latest requirements. Higher energy efficiency is achieved thanks to Silyl Acrylate anti-fouling. The vessels are also equipped with automatic performance monitoring and data analytics systems.

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<b>Vessel Type</b>	<b>Yard</b>
Liquefied petroleum gas (LPG) carrier	2020
<b>Year built</b>	<b>LOA</b>
2020	229.9 m
<b>Flag</b>	<b>Beam</b>
Marshall Islands	32.3 m
	<b>Draught</b>
	23.2 m





# Horizon from the bridge

Through a seafarer's eyes

## Liquid hydrogen: A new energy source for shipping?

In the context of zero-carbon consumption and, more specifically, fuel decarbonization, large companies involved in the renewable energies sector have joined forces to ensure that the transition from carbon-containing fuels to environmentally friendly ones can be realized within the scheduled timetable.

The “HySHIP” project, which focuses on the use of hydrogen as a marine fuel, received an €8 million funding from the EU as the Norwegian government is significantly enhancing its policies surrounding the development and commercial use of hydrogen as a fuel.

by **Capt. Georgios Georgoulis**

The project comprises 14 European partners, collaborating on the construction of a prototype ro-ro vessel that runs on liquid hydrogen (Liquid Hydrogen – LH2) as a “green fuel,” and the creation of a sustainable LH2 supply chain. Known as Topeka, the vessel will be the first of its kind to become commercially available.

More specifically, the project focuses on the cost reduction of the development and operation of the supply chain’s transition towards using hydrogen as a marine fuel within Europe.

The Wilhelmsen group will manage the vessel, and the project, along with the bunkering stations along the entire Norway coastline, is expected to be fully operational by 2024.

Apart from Wilhelmsen, the project is supported by Kongsberg Maritime, LMG Marin, Equinor, Norled, PersEE, Diana Shipping, Stolt-Nielsen Inland Tanker Service BV, Air Liquide, NCE Mar-



itime CleanTech, DNV GL, ETH Zürich, Strathclyde University and Demokritos.

From its first day at sea, the vessel will ensure the flow of goods across the Norwegian coastline, while also transporting hydrogen tanks for the bunkering stations. Norway's west coast is filled with bases that support the country's offshore activities, with transportations from shore bases to offshore platforms, a route that perfectly fits the LH2. Bunkering stations will supply vessels running on LH2 engines, including ferries and deep-sea vessels. According to HySHIP, Topeka will lead to a general transition to LH2, and the transportation of trucks by sea will reduce the number of trucks on the road by almost 25.000 per year.

A hydrogen-driven coast-liner constitutes an ecological alternative Equinor's bases (compa-

ny that participates in the project) on the west coast of Norway. The company states that it aspires to move cargo from road to sea and halve emissions from our maritime activities in Norway by 2030.

The Topeka will be built for zero-emissions through a combination of 1,000 kWh battery capacity and a three-megawatt PEM (proton exchange membrane) hydrogen fuel cell. Hydrogen will be sourced from the new LH2 production plant planned at Mongstad outside Bergen by BKK, Equinor, and Air Liquide.

HySHIP will also conduct three additional studies, including a smaller, 1MW tanker barge for use on inland waterways, a 3MW fast ferry, and a scaling-up study on a larger, 20MW energy system for ocean-going vessels modelled on a Capesize bulk carrier.





#### **AIS in Nigerian waters: the new developments**

In October 2020, the National Nigerian Petroleum Corporation – NNPC issued a warning to all ship operators and stakeholders in maritime transportations that the country's Navy will proceed to detain vessels that have their Automatic Identification Systems –AIS switched off when navigating through its waters. NNPC also stresses to both operators and masters that according to the International SOLAS Convention c/5 for maritime safety regulation 19, they are required to keep the ship's AIS running at all times, whether the ship is traveling or located at the berth. The announcement alone gives rise to some reasonable questions, such as:

- Why does the Nigerian government have to issue a special warning for an obligation that stems from the SOLAS Convention?
- Why do vessels violate regulations that stem from arguably the IMO's biggest Convention?
- Is there a greater danger arising from the operation of the AIS and if so, what is it?

According to the IMO, the purpose of the installation and operation of the AIS system on ships is to enhance the safety and efficiency of navigation and the protection of the marine environment. The system automatically provides information about the ship to adjacent ones and coastal stations and can also facilitate decision-making, collision avoidance, ship monitoring, and search and rescue operations. In general, data received through AIS improves the quality of the information available to the ship's Officer On Watch (OOV) or the duty Officer on VTIS. Apart from the OOV, the AIS also constitutes a substantial aid for pirates, as they can obtain important information about the ship such as:

- Name and callsign
- Vessel's Maritime Mobile Safety Identity
- Status (Loaded-unloaded)
- Last port of call
- Cargo type
- Destination and port ETA
- Position, speed, course

With this information, pirates can easily target the ships that enter their field of action and plan attacks more effectively, thus making the system dangerous to the crew and cargo's safety. With that in mind, IMO amended the guidelines for using AIS, allowing administrators and masters to disable the system when the ship is sailing in high-risk areas. However, even if disabling AIS in selected areas seems to be an effective measure in trying to avoid pirate attacks, in reality, it did not live up to expectations and deprived seafarers of important information. Nowadays, the general recommendation is for operators and masters to maintain the system on disclosing only a select number of information regarding the vessel's navigational safety, like its position, name, speed, and course. Furthermore, with the AIS switched on in high-risk areas, the relevant authorities can detect the vessel at any time, thus allowing them to intervene more effectively in case of a piracy attack.



Finally, as far as the Nigerian government is concerned, it would be wise for it to guard its territorial waters more efficiently and ensure the safety of ships at berth without having the masters and crews doubt their services' reliability prior to issuing threats for detaining ships. If seafarers feel safe, there is no way they will turn off vital navigation safety aids and endanger the vessel.

#### **"Safe air": the cruise industry's answer to Covid-19?**

MSC Seashore, a cruise ship still under construction and owned by the Swiss company MSC Cruises, will be the first ship to have the new "Fresh air" air disinfection system designed by Fincantieri shipyard.

In close collaboration with the International Center Genetic Engineering Biotechnology (ICGEB), the Italian shipyard developed the air disinfection system known as "Safe Air," which is expected to improve the air quality and purity on cruise ships significantly. MSC was the first major liner company to return to cruising with a new strict protocol, approved by national and regional authorities following the suspension of cruises in March due to the pandemic. The protocol has been in effect since August 16, when MSC Grandiosa began cruising in the Western Mediterranean and has to this day completed eight cruises safely. MSC Seashore is currently under construction at the Monfalcone shipyard in Fincantieri and will be the largest and one of the most technologically advanced cruise ships ever built in Italy. The ship will have some of the latest technological solutions available for reducing its environmental impact, more specifically in the sectors of Selective Catalytic Reduction systems (SCR) and Advanced Wastewater Treatment (AWT). SCRs reduce NOx emissions by up to 90%, while AWT systems, through a process of purification and very fine filtration, convert wastewater into almost potable (tap water). The ship will also be able to use "cold iron" systems that will allow it to connect to local electricity networks, thus eliminating its emissions while in a port. Lastly, the ship will be supplied with the "safe air" air disinfection system developed by the Fincantieri designers and technicians and ICGEB, a research institute based in Trieste Italy, which provides companies with scientific support for developing innovative technological solutions for the control of viral infections. This is particularly important today, given the current global health crisis. The "safe air" disinfection system is based on the UV-C lamps technology, i.e., UV type C rays applied to air conditioning systems. In this way, the air will pass through a UV light, which neutralizes viruses, bacteria, and mold.

If the effectiveness of the system is really what its designers are touting it to be and is clinically certified by scientists, cruises may be able to restart with ships that guarantee protection from the spreading of the virus with the air conditioning system.



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# Market News



## MacGregor

### The value of local specialists

While the consequences of Covid-19 remain open-ended, the pandemic is concluding the case for condition-based information, as owners and operators realise the benefits of original equipment manufacturer support in the digital age.

While condition-based information backed by responsive specialist support and technical expertise has become increasingly crucial to effective maintenance planning and maximising operational availability, Coronavirus related restrictions have consolidated the appeal.

"In the past, the service organisation footprint and logistics management capabilities required to effectively support ships in operation and maintaining a schedule have perhaps not been fully recognised," says John Carnall, MacGregor's Senior Vice President, Global Services. "With the current limitations on travel and provision of onboard support, this has changed, and customers are seeing the value of locally-based specialists and remote technical expertise in ensuring that the right parts

are available in the right place at the right time."

With 850 specialists and 60 service centres located in 31 countries worldwide, MacGregor fully understands the value of local specialists supported by 'centre of excellence' based technical experts, and an ability to supply original spare parts from regional warehouse stock.

"Customers are recognising the value of condition-based information as a maintenance planning advantage," adds Dennis Mol, Vice President, Digital and Business Transformation.

### *Condition-based maintenance management*

"As an industry, we are moving towards predictive tools, which will help to eliminate unplanned downtime and ultimately reduce maintenance costs and increase revenue and profitability," adds Mol.

He says MacGregor's extensive knowledge is being channelled into developing algorithms that can predict when certain equipment requires maintenance based on use and condition, rather than relying on conventional time-based service schedules. Digital advances in this arena include 'OnWatch Scout', with two merchant and offshore pilots currently in operation and more awaiting installation.



"OnWatch Scout is a predictive tool developed to ensure that equipment is able to operate more or less continuously. It detects variations in the behaviour of components and predicts what might happen. We then have the ability to notify the customer and advise them of the preventative steps that need to be taken to avoid component failure," says Mol.

Future development plans include the extension of the OnWatch Scout capability beyond cargo and load handling cranes to include hatch covers, deck machinery, and other critical equipment and systems.

Making expert knowledge available to customers through simulation-based training is another information-based tool that enhances crew capabilities, operational safety, and equipment reliability.

"Whereas OnWatch Scout provides real-time, condition-based information, 'digital twin' services provide a dynamic environment that enables procedure demonstrations and training to take place, with the ability for this type of training to be undertaken by crew onboard being a planned development of MacGregor's," says Mol.

### *Close is good; even closer is better*

Good maintenance practices positively support business operations, but John Carnall emphasises that saving costs does not mean cutting down on maintenance itself: "It means being focused on doing it the right way," he says.

"OEMs know their equipment better than anyone else. Technical personnel can also make relatively small adjustments to operational parameters that deliver material performance benefits."

This is particularly important with reported shipping incidents on the rise and an increased level of scrutiny applied to equipment failure-related insurance claims, particularly where genuine parts have not been used or maintenance not carried out.

"In many cases, these incidents could have been avoided through periodic visual inspection, but the prolonged industry downturn and current Coronavirus crisis have meant that maintenance budgets have been impacted," Carnall notes.

"When we are able to have an effective dialogue with customers, jointly plan required work and then carry it out as agreed, we are the best at what we do," Carnall says. "With this being increasingly combined with the availability of condition-based information to support effective maintenance planning, we can further enhance the world-class operational support expected of MacGregor, even in the most challenging of times."



## **Digital technology, new solutions and continuous evolution**

### **ClassNK's Digital Grand Design frames its strategy for a more sustainable maritime industry**

ClassNK recently unveiled its Digital Grand Design to express the pivotal role it expects digital technology to play not only in making the industry more efficient but also in meeting with the United Nations' Sustainable Development Goals (SDGs) for a 'better and more sustainable future for all' by 2030. Recently the Society followed through with the first significant step on this 10-year journey, after launching 'Innovation Endorsement' as a new certification service for pioneering digital solutions.

### *Changing tides*

The digital revolution sees the arrival of new players leveraging the data collected on board vessels, as well as fresh collaborations with existing stakeholders to create new value for shipping companies and others in the maritime supply chain. By enabling rapid and accurate performance monitoring and benchmarking, data sharing will dove-



tail with the emergence of new business models resulting from a shift to more sustainable practi-

c- there is little scope for vessel operators to learn from the experience of others – the sector's preferred approach to technology adoption.

Here, too, ClassNK can exploit its impartial status by collaborating with providers of innovative technologies. This would increase confidence among shipping companies who may otherwise be wary of introducing digital innovations and help the sector more generally to overcome any misgivings.

### *Anticipating regulatory burdens*

Whenever new technology or approaches are proposed, it is imperative that they are verified as fit-for-purpose – especially when safety is at stake. Difficulties arise when a novel solution falls outside existing regulatory frameworks or requires an altogether new testing regime, as this may significantly extend the approval process.

To accelerate the implementation of new technology, ClassNK is leveraging in-house expertise and links with standards, organizations, and maritime authorities to establish evaluation methods and contribute to the development of regulations ahead of time.

### *Evaluation*

Lastly, there is a need for accurate evaluation founded on engineering principles. To date, ClassNK has inspected and issued approvals for vessels based on its rules for steel ships and related instruments. However, a wider focus is necessary to cope with the assessment needs of new business models and unorthodox collaborations between a broader array of stakeholders.

### *Charting a new course*

To exploit the opportunities described above and respond to the demands that the digital revolution imposes on the maritime industry, ClassNK plans to work closely with the maritime players developing and pioneering the use of new solutions.

Digital Grand Design marks the beginning of the next phase in ClassNK's continual evolution, as it steers the industry into uncharted territory shaped by digitalization and mounting pressure to minimize environmental impact.

In the digital era, ClassNK is also committed to ensuring that the rules that govern shipping do not obstruct innovation unnecessarily and, where benefits are clear, that they are adjusted to support it.



es as set out in the UN's SDGs.

Some outcomes are already clear. Firstly, data sharing has implications not only for shipyards and shipping lines but for the cargo owners and forwarders relishing the opportunity for greater transparency and accountability. It will also offer a platform for new stakeholders such as digital forwarders and system integrators.

For ClassNK, the aim is to adjust, in order to serve the needs of a greater variety of players.

### *Data assurance*

Using data to make better decisions is the fundamental premise of digitalization. Data collection is already standard practice, with an increasing number of operators investing in upgraded connectivity in order to send information ashore, either to technical departments, equipment manufacturers, or applications providers.

To succeed, data-collecting systems must be reliable, and the data itself needs to meet certain standards – and this relies on an impartial arbiter of data quality. As an independent third party with extensive engineering expertise, ClassNK is ideally positioned to fulfil this role.

### *Technology assurance*

With new functionalities becoming available in quick succession and a shortage of early adopters,

## Marine lubricants solutions for your journey



by **Sotiris Meklis**,  
Regional Manager Med. Middle East & Africa at  
Chevron Marine Lubricants

Alongside everything else that an unprecedented period of uncertainty has thrown at shipping, 2020 started with the marine fuels market's biggest-ever shakeup. The majority of internationally trading ships switched to very low-sulfur fuel oil (VLSFO), with a sulphur content of 0.50% m/m or lower, in compliance with IMO's MARPOL Annex VI sulphur regulations. Prior to the fuel change, there was industry-wide concern about how new fuels could affect ship operations. Chevron Marine Lubricants assessed how the industry dealt with these issues in a recent white paper 'Taking the Temperature of the 2020 Global Sulphur Cap'. The experience of the great sulphur switch provides both customers and suppliers with valuable lessons as the shipping industry looks toward 2050.

This year saw most customers switch from HSFO to VLSFO. According to Luc Verbeeke, Senior Engineer, Chevron Marine Lubricants, despite the daunting challenges, it appears as though the switch went smoothly for most ship operators. "We did see OEMs report a temporary spike in scuffing issues on engine cylinders. This was not unexpected, and the majority of issues are more related to housekeeping — such as handling fuels, properly and following OEM advice — than fuel quality or cylinder lubrication." There have also been some important learnings about VLSFO itself. As late as December 2019, the consensus was that the marine fuels market would feature a myriad of VLSFOs with a widely varying range of fuel quality. The reality has been somewhat better for operators. In fact, according to Luc Verbeeke's analysis, VLSFO has, in general, turned out to be a high-quality product with a greater energy content and faster combustion than traditional HSFO.

However, some older units that would have survived for perhaps another six months to a year on HSFO struggled with the new fuel regime. In some cases, red deposits were found in used oil samples, and piston damage was discovered in some engine cylinders. With support from Chevron's marine experts, a program of sweep tests, and analysis with DOT.FAST onshore service ensured that these issues were quickly addressed. Reporting from the oil analysis service also indicates that corrosion remains a risk under the new fuel regime. In the run-up to the sulphur cap, Chevron Marine Lubricants renewed its range of cylinder oils to cover the entire spectrum of fuels that would be used after 2020 — from near-zero sulphur fuels such as LNG or methanol to HSFO with a sulphur content possibly even higher than 3.5%. The Taro Ultra range was formulated to offer flexibility and to ensure global supply. It was rolled out across Chevron Marine Lubricants' existing supply network of over 573 ports during 2019 to ensure readiness to meet the demands of the post-2020 landscape. Taro Ultra 40 is an example of that flexibility. It was rigorously tested with VLSFO blends and is also suitable for intermittent operations that vary between the use of LSFO, blends, and distillates — such as when switching fuels when sailing through SECAs. This removes the use of multiple cylinder oils, reducing on-board complexity.

Read the full white paper at  
[chevronmarineproducts.com](https://chevronmarineproducts.com).

**Chevron Marine Lubricants**





## MicroZone™ Technology

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**Jotun**

### A driving force in antifouling innovation and performance

Jotun announced the launch of a range of premium antifouling coatings to succeed its market leading SeaQuantum S-line offering tailor-made fouling protection. The silyl methacrylate-based SeaQuantum III series, with products tailored for customer specific vessel operational profiles, sets a new industry standard, keeping biofouling under control to deliver an average speed loss performance of just 2% over a 60-month period. This translates to compelling owner benefits in terms of operational efficiency, environmental protection and huge fuel savings – USD 500K per year on average for a 3,000 TEU feeder container ship, and the gains extend with larger vessels and fuel price hikes.

Jotun is a driving force in antifouling innovation and performance, introducing silyl-based coatings to the market in 2000 through the SeaQuantum range. Now, says Tan Keng Khoo, Global Marketing Manager, Jotun, the SeaQuantum III series marks an evolutionary step forward in development, thanks to a new silyl methacrylate blend and the introduction of microZone™ technology.

#### *Added value innovation*

“In an ever more competitive world, shipowners need solutions that don’t just work in principle, but rather deliver reliable performance and

quick return on investment to gain real commercial edge in a cut throat industry,” Tan notes, adding: “SeaQuantum III can make that difference.”

#### *Tailored to perform*

SeaQuantum III features three products, tailored to different operational profiles: SeaQuantum Ultra III for vessels with lower activity (with up to 45 idle days), SeaQuantum Classic III for medium activity (30 idle days), and SeaQuantum Plus III for high activity (with higher vessel speeds). All feature microZone™, a new technology that prolongs the time between the activation of coating biocides and their dispersal, keeping them closer to the hull longer and thus creating a protective shield against fouling. The result is a cleaner hull, less friction, reduced operational fuel costs and faster return on investment.

In addition, the formulation of SeaQuantum III ensures a lower volatile organic compound (VOC) content and higher volume of solids, ensuring compliance with strict global and regional VOC regulations (including Asia)

### Introducing high performing, biodegradable lubricants

One of the hottest fields of sustainable development in the marine market, is the sector of biodegradable lubricants usage.

**Panolin**



## *Panolin lubricants in the marine industry – Robust and Reliable*

The Panolin Group is an international, independent family owned company with headquarters in Switzerland and offices and blending facilities in several countries. Panolin is a full-range lubricants' designer and supplier with its core competence in high performing, environmentally acceptable lubricants (EAL's) - employing saturated synthetic ester base oil technology - since 1983.

### *The Greenmarine concept*

Constantly growing demands on vessels' equipment reliability, as well as worldwide awareness for environmental protection, led Panolin to develop and introduce Greenmarine 10 years ago - a lubricant 'family' concept especially for the Marine and Offshore Construction industries. Panolin has already had a successful 30-year track record in high performing and environmentally acceptable lubricants.

### *Special lubricants for special protection*

The marine transport sector never stops and work that takes place offshore must be carried out with extreme caution and sensitivity to the environment. That is why the use of safe, sustainable, low maintenance and environmentally friendly lubricants is extremely important.

The Panolin Greenmarine product family consists of different fluids and greases especially developed for specific applications. The bio hydraulic fluids Atlantis and Hlp Synth, Margear gear oils, Biogrease and Margrease cable/gear/underwater greases and a special stern tube lubricant, Stella Maris, have been developed and are performing without any reported operational problems, whilst reducing the ecological footprint of the equipment. Panolin fully synthetic, 'readily biodegradable' lubricants (meaning the base oil is fully decomposed by soil and water microorganisms) are characterized by high thermal, oxidation and shear stabilities, enhanced hydrolytic stability and with providing outstanding wear and corrosion protection. In addition, long oil-change intervals - leading to reduced equipment downtime and maintenance costs - are achievable.

### *Approved worldwide*

Panolin Greenmarine lubricants are used worldwide and are approved by numerous major vessel



propulsion, steering, stability and deck equipment manufacturers, giving them the peace of mind that their equipment will operate as designed and be compliant with the prevailing environmental regulations. A wide selection of Panolin lubricants meet the requirements of internationally eminent eco-labels such as EU Eco-Label, Cefas and EPA VIDA/VGP - which is needed for lubricants with an oil-to-sea interface - used in a vessel entering US waters. Panolin Greenmarine lubricants also meet the environmental guidance of the Polar Code for vessels sailing in Polar regions.

### *The big picture*

These cornerstones of the Greenmarine concept are all part of one 'big mission' of Panolin - to make high performing, biodegradable lubricants the global standard. Offering lubricants with the combination of being 'readily' biodegradable, a reduction in CO<sub>2</sub> emissions and conservation of resources, are central elements of the company's philosophy and part of a recipe for success. With these fundamental ideas, a visionary spirit and a constant drive for improvement, Panolin will continue to contribute to the preservation of the world's waterways and oceans and continue to provide reliable lubricants for the safe and long operational life of vessels' equipment.

Panolin is a statement for:

- Advanced technology
- Environmental responsibility
- Security – 35 years of EAL experience

*Lubrichemo Hellas Co ([www.lubrichemohellas.com](http://www.lubrichemohellas.com)), leading Green Initiatives in the marine market, is representing PANOLIN International, one of the pioneering companies in Synthetic Biodegradable oils, for more than 70 years, now.*



# Energy & Natural Resources

## ConocoPhillips to acquire Concho Resources

ConocoPhillips and Concho Resources entered into a definitive agreement to combine companies in an all-stock transaction. Under the terms of the transaction, which has been unanimously approved by the board of directors of each company, each share of Concho Resources (Concho) common stock will be exchanged for a fixed ratio of 1.46 shares of ConocoPhillips common stock, representing a 15 percent premium to closing share prices on October 13. The transaction combines two high-quality industry leaders to create a company with an enterprise value of approximately \$60 million that will offer stakeholders a superior investment choice for sustainable performance and returns through cycles.

“The leadership and boards of both companies believe the transaction

is an affirmation of our commitment to lead a structural change for our vital industry,” said Ryan Lance, ConocoPhillips chairman and chief executive officer. “Concho is a tremendous fit with ConocoPhillips. Together, ConocoPhillips and Concho will have an unmatched scale and quality across the important value drivers in our business: an enviable low cost of supply asset base, a strong balance sheet, a disciplined capital allocation approach, ESG excellence, and great people. Importantly, the transaction meets our long-stated and clear criteria for mergers and acquisitions because it is completely consistent with our financial and operational framework.”

“Through this combination, we are joining a diversified energy company with even more scale and resources to create shareholder value in today’s markets and beyond,” said Tim Leach, chairman and chief executive officer of Concho Resources.

## Total delivered its first carbon-neutral LNG cargo

Total has delivered its first shipment of carbon neutral liquefied natural gas (LNG) to the Chinese National Offshore Oil Corporation (CNOOC). The term “carbon neutral” indicates that Total and CNOOC have offset the amount of carbon dioxide equivalent associated with the whole carbon footprint of the LNG Cargo (including the production, liquefaction, shipping, regasification, and end-use) through VCS certified emission reduction projects.

The loading operation was carried out at the Ichthys liquefaction plant in Australia, and the shipment was delivered on September 29 to the Dapeng terminal, China.

“We are proud to have completed this first shipment of carbon neutral LNG with CNOOC, a long-standing partner of Total. This first LNG shipment, whose carbon emissions have been offset throughout the value chain, represents a new step as we seek to support our customers towards carbon neutrality,” explains Laurent Vivier, President for Gas at Total. “The development of LNG is essential to meet the growth in global demand for energy while reducing the carbon intensity of the energy products consumed.”

The carbon footprint of the LNG shipment was offset with VCS (Verified Carbon Standards) emissions certificates financing two projects:

- Hebei Guyuan Wind Power Project, which aims to reduce emissions from coal-based power generation in northern China.
- Kariba REDD+ Forest Protection Project, which aims to protect Zimbabwe's forests.

Edited by:  
**Giannis Theodoropoulos**

### **A pioneering project aiming at replacing fossil hydrogen with renewable hydrogen**

Ørsted, an offshore wind developer, and Yara, a leading fertilizer company, have joined forces in developing a pioneering project aiming at replacing fossil hydrogen with renewable hydrogen in the production of ammonia with the potential to abate more than 100,000 tonnes of CO<sub>2</sub> per year, equivalent to taking 50,000 conventional cars off the road. If the required public co-funding is secured, and the right regulatory framework is in place, the project could be operational in 2024/2025.

Yara and Ørsted share the vision of creating a sustainable future and have joined forces to develop a 100 MW wind-powered electrolyser plant for renewable hydrogen production, aiming to replace fossil-based hydrogen with renewable hydrogen for ammonia production in Yara's Sluiskil plant, located in the Dutch province of Zeeland. The renewable hydrogen would generate around 75,000 tons of green ammonia per year - approx. 10% of the capacity of one of the ammonia plants in Sluiskil - based on dedicated renewable energy supply from Ørsted's offshore

wind farms. Ørsted is about to inaugurate its Borssele 1&2 offshore wind farm, the second biggest in the world, located off the coast of Zeeland close to the Sluiskil plant.

The green ammonia is intended to be used to produce carbon-neutral fertilizer products, decarbonize the food value chain, and has potential as a future climate-neutral shipping fuel.

Hydrogen produced from renewable energy sources offers a carbon-free alternative to fossil-based hydrogen, but currently comes at a significantly higher cost. Closing this cost gap takes time and will depend on public support to supplement private investments in large-scale renewable hydrogen and ammonia production. Ørsted and Yara will, therefore, now seek public co-funding for the development and construction of the 100MW electrolyser facility to support the project. Subject to sufficient co-funding and a confirmed business case, a final investment decision to build the new plant could be taken in late 2021 or early 2022.

### **Natural gas generators make up the largest share of U.S. electricity generation capacity**

Based on the U.S. Energy Information Administration's (EIA) annual survey of electric generators, natural gas-fired generators accounted for 43% of operating U.S. electricity generating capacity in 2019. These natural gas-fired generators provided 39% of electricity generation in 2019, more than any other source. Most of the natural gas-fired capacity added in recent decades uses combined-cycle technology, which surpassed coal-fired generators in 2018 to become the technology with the most electricity generating capacity in the United States.



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## Middle East and North Africa: Planned gas investments jump despite historic global gas demand shock

The Arab Petroleum Investments Corporation (APICORP) recently released its Middle East and North Africa (MENA) Gas & Petrochemicals Investments Outlook 2020-2024 on the MENA region's planned and committed investments for the period 2020 to 2024. The report features key regional developments in the regional gas and petrochemical landscape and the dynamics shaping it over the short and medium terms.

### Regional Developments

2020 is witnessing one of the biggest gas demand shocks on record, with a year-on-year (y-o-y) reduction of 4% globally. This stands in stark contrast to 2019, which was a record year for liquefied natural gas (LNG) Final Investment Decisions (FIDs). The 2020 global crisis is expected to reduce the annual growth rate for global gas demand during 2020-24 to 1.5% compared to the pre-COVID-19 estimate of 1.8%.

Despite the global demand shock, the MENA region's committed gas investments held steady compared to last year. Meanwhile, planned investments increased by 29% to reach USD126 bn, mainly due to the strong ongoing regional gas drive for cleaner power generation and improved monetization as a feedstock for the industrial and petrochemicals sectors. Notably, the petrochemicals sector witnessed a y-o-y increase of USD4 bn in planned projects compared to last year's outlook. In contrast, committed projects decreased by USD13 bn due to the completion of several projects in 2019.

The share of government investments in committed and planned gas projects (92%) is higher than in the petrochemical sector (72%). Given the increasing size of projects, such investments typically rely on a 70:30 or 80:20 debt/equity ratio.

Technological developments have improved natural gas generators' efficiency since the mid-1980s when combined-cycle plants began replacing older, less efficient steam turbines. For steam turbines, boilers combust fuel to generate steam that drives a turbine to generate electricity. Combustion turbines use a fuel-air mixture to spin a gas turbine. As their name implies, combined-cycle units combine these technologies: a fuel-air mixture spins gas turbines to generate electricity, and the excess heat from the gas turbine is used to generate steam for a steam turbine that generates additional electricity.

Combined-cycle generators generally operate for extended periods; combustion turbines and steam turbines are typically only used at peak load times. Relatively few steam turbines have been installed since the late 1970s, and many steam turbines have been retired in recent years. Except for Vermont and Hawaii, every U.S. state has at least one utility-scale natural gas electric power plant. Texas, Florida, and California—the three states with the most electricity consumption in 2019—each have more than 35 gigawatts of natural gas-fired capacity. In many states, the majority of this capacity is combined-cycle technology, but 44% of New York's natural gas capacity is steam turbines, and 67% of Illinois's natural gas capacity is combustion turbines.







choose

# ΔΙΝΟΥΜΕ ΟΛΗ ΜΑΣ ΤΗΝ ΕΝΕΡΓΕΙΑ ΓΙΑ ΤΟ ΜΕΛΛΟΝ ΤΟΥ ΠΛΑΝΗΤΗ



**ΔΕΠΑ Εμπορίας Α.Ε.**

Στη ΔΕΠΑ Εμπορίας δίνουμε όλη μας την ενέργεια για την προστασία του περιβάλλοντος. Με μία επένδυση άνω των € 3,2 δισ., φέραμε στην Ελλάδα το φυσικό αέριο, το πιο φιλικό προς το περιβάλλον από όλα τα ορυκτά καύσιμα, που μειώνει σημαντικά τις εκπομπές αερίων του θερμοκηπίου. Σήμερα, το φυσικό αέριο είναι η γέφυρα προς την απολιγνιτοποίηση και την ενεργειακή μετάβαση της χώρας και εμείς βγαίνουμε πάλι μπροστά, επενδύοντας σε καινοτόμες τεχνολογίες, που το φέρνουν σε κάθε γωνιά της Ελλάδας. Παράλληλα, αναπτύσσουμε εναλλακτικά και φιλικά προς το περιβάλλον καύσιμα, όπως το υδρογόνο και το βιομεθάνιο και επεκτείνουμε τη δραστηριότητά μας σε στρατηγικούς ενεργειακούς τομείς. Γιατί στη ΔΕΠΑ Εμπορίας μάς γεμίζει ενέργεια το να στηρίζουμε την ανάπτυξη και την αειφορία.

**ΕΝΕΡΓΕΙΑ ΠΟΥ ΜΑΣ ΠΑΕΙ ΜΠΡΟΣΤΑ.**





# Aviation Industry

News from the aviation world

## The risk for COVID-19 transmission inflight

The International Air Transport Association (IATA) demonstrated the low incidence of inflight COVID-19 transmission with an updated tally of published cases. Since the start of 2020, a total of 44 Covid-19 cases have been reported, in which transmission is thought to have been associated with a flight journey (inclusive of confirmed, probable, and potential cases). Over the same period, some 1.2 billion passengers have travelled.

“The risk of a passenger contracting COVID-19 while onboard appears to be very low. With only 44 identified potential cases of flight-related transmission among 1.2 billion travelers, that’s one case for every 27 million travelers. We recognize that this may be an underestimate, but even if 90% of the cases were unreported, it would be one case for every 2.7 million travelers. We think these figures are extremely reassuring. Furthermore, the vast majority of published cases occurred before the wearing of face coverings inflight became widespread,” said Dr. David Powell, IATA’s Medical Advisor.

New insight into why the numbers are so low has come from Airbus, Boeing, and

Embraer’s joint publication of separate computational fluid dynamics (CFD) research conducted by each manufacturer in their aircraft. While methodologies differed slightly, each detailed simulation confirmed that aircraft airflow systems do control the movement of particles in the cabin, limiting the spread of viruses. Data from the simulations yielded similar results:

Aircraft airflow systems, High-Efficiency Particulate Air (HEPA) filters, the natural barrier of the seatback, the downward flow of air, and high rates of air exchange efficiently reduce the risk of disease transmission on board in normal times.

The addition of mask-wearing amid pandemic concerns, adds a further and significant extra layer of protection, which makes being seated in close proximity in an aircraft cabin safer than most other indoor environments.


## The first commercial passenger flight from a GCC nation to Israel

Etihad Airways, the UAE’s national airline, is the first GCC carrier to operate a commercial passenger flight to and from Israel to bring Israel’s top travel and tourism leaders to the UAE.

The historic flight, flown in partnership with the

Edited by:  
**Konstantinos  
Giannakopoulos**





Maman Group, departed Tel Aviv on October 19th, operated by an Etihad Boeing 787 Dreamliner aircraft for the three-and-a-half-hour journey from Israel to the UAE. The return journey departed Abu Dhabi on October 21st.

As a travel trade mission, the flight brought a group of tourism industry leaders, key corporate decision-makers, travel agents, and cargo agents, along with media to experience Abu Dhabi and the wider UAE, at the invitation of Etihad Airways and representatives of Abu Dhabi's tourism industry.

This is the latest development in a growing cooperation between the two nations following the establishment of diplomatic ties and the signing of the Abraham Accords between the UAE and Israel in Washington, D.C., on September 15th. It also follows Israeli national airline El Al's first symbolic commercial flight between Tel Aviv and Abu Dhabi on August 31st.

As an important facilitator of trade, the flights between Tel Aviv and Abu Dhabi will also carry commercial cargo sourced from, and destined for, points across Etihad's global network, in addition to commercial guests.

Coinciding with the first commercial flight and in celebration of the recent peace accords between the UAE and Israel, Etihad has become the first non-Israeli airline in the Middle East to launch a dedicated website for the Israeli market in Hebrew.

#### **Passenger traffic in Greek airports declines**

The total number of passengers transported from Greek airports for the first nine months of 2020 reached 16.6 million, a decline of 68.9% compared to last year when 53.4 million passengers were transported, according to data from the Hellenic Civil Aviation Authority. Flights departing from the country's airports amounted to a total of 195,762, 96,605 of which were domestic and 99,157 international, a decline of 54.8% compared to the same last year's period, when 433,320 flights took off.

According to September's aviation data, passenger movements within the country's airports reached 3,149,471, a drop of 63.1% compared to 2019, during which passenger movements rose to 8,523,771. Total flights reached 34,582, a drop of 46.7% compared to the corresponding period of 2019 when 64,906 flights were operated.

1,093,048 foreign passengers arrived at Greek airports, a decline of 66% compared to 3,217,115 arrivals in 2019. Statistical data from all the country's airports marked a downward trend for the seventh consecutive month, reflecting the negative impact of Covid-19 on the aviation sector.

#### **Cathay Pacific to reduce workforce by a quarter**

The Cathay Pacific Group announced a corporate restructuring in response to the continued impact of the COVID-19 pandemic on the aviation market. The restructuring will enable the company to secure its future so that it can meet its responsibilities to the Hong Kong aviation hub and its customers. Major elements of the restructuring include:

- Reducing approximately 8,500 positions across the entire Group, which accounts for around 24% of its established headcount. Through a recruitment freeze and natural attrition, the Group will reduce this to 5,900 actual jobs (or 17% of its established headcount). This means

some 5,300 Hong Kong-based employees being made redundant, and approximately 600 employees based outside of Hong Kong also possibly being affected subject to local regulatory requirements.

- Cathay Dragon, the Group's wholly-owned regional subsidiary, will cease operations with immediate effect. It is intended that regulatory approval will be sought for a majority of Cathay Dragon's routes to be operated by Cathay Pacific and HK Express, a wholly-owned subsidiary.
- Executive pay cuts will continue throughout 2021, and a third voluntary Special Leave Scheme for non-flying employees will be introduced for the first half of next year. There will be no salary increases for 2021 nor the payment of the annual discretionary bonus for 2020 across the board for all employees. Outport colleagues will be subject to local arrangements.

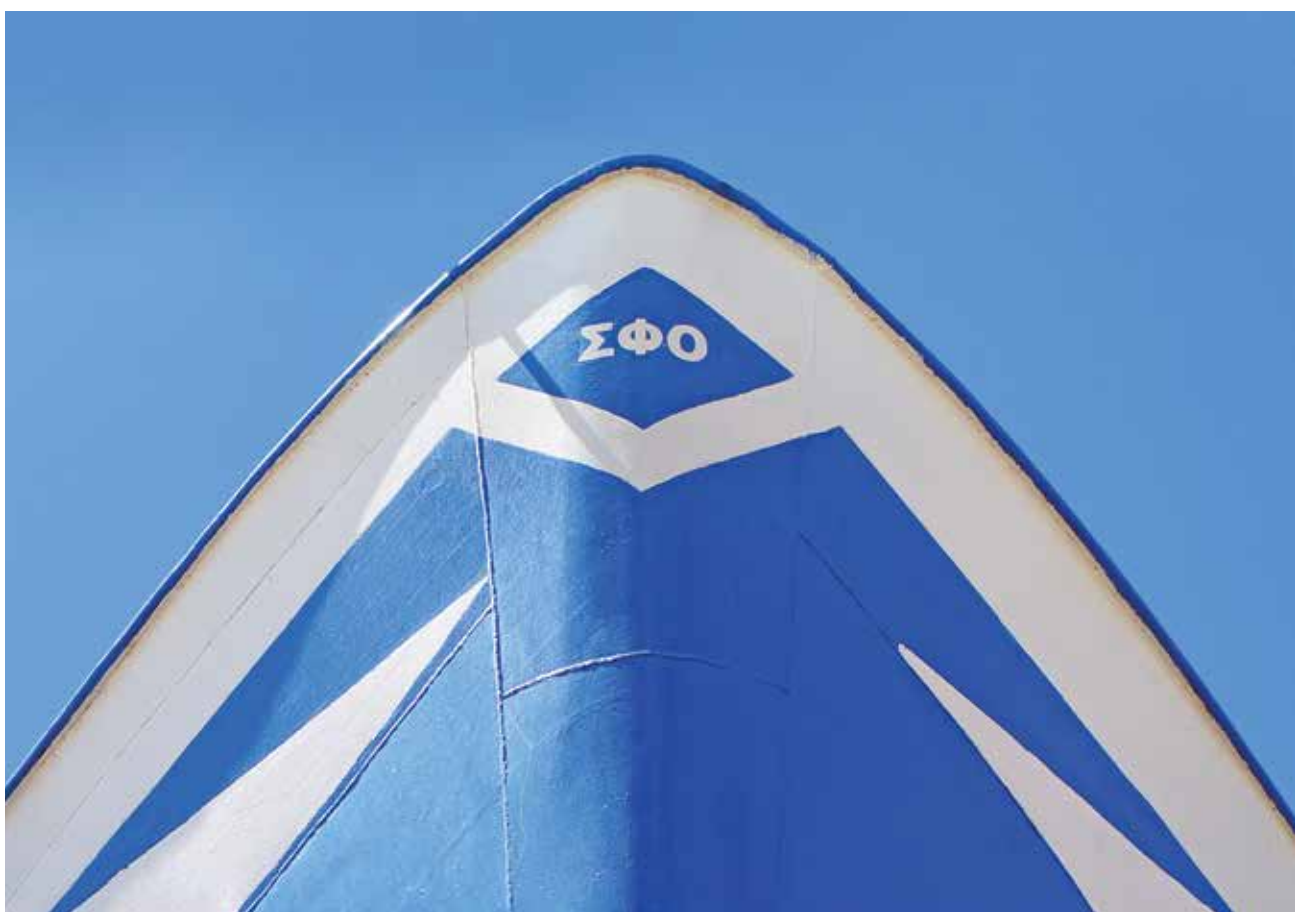
Cathay Pacific Chief Executive Officer Augustus Tang said: "The global pandemic continues to have a devastating impact on aviation and the hard truth is we must fundamentally restructure the Group to survive. We have to do this to protect as many jobs as possible and meet our responsibilities to the Hong Kong aviation hub and our customers".

#### **Qatar Airways network expands to 100 destinations**

Qatar Airways announced the resumption of services to Sofia via Bucharest, marking the 100th destination to be added back to its global network. The three weekly flights to Sofia started from October 16, 2020, will see the airline's network expand to more than 700 weekly flights across six continents.

The airline's mix of fuel-efficient aircraft and strategic network management has enabled it to quickly resume flights and expand services in line with passenger demand.

His Excellency Mr. Akbar Al Baker, Qatar Airways Group Chief Executive, said: "As one of the few airlines to have continuously flown throughout the pandemic to take passengers home safely and reliably, we are proud to reach this significant milestone in rebuilding of our network. Our focus is not only on restarting destinations but also operating as many frequencies as possible to provide our passengers the flexibility to travel when they want."








# Joint ventures, consortia and regional development: **The Oinoussian maritime paradigm**

An interview with **Mr. Ioannis G. Lygnos**,  
President of the Oinoussian Friends Association, to Giannis Theodoropoulos\*

The small yet imposing island of Oinousses looms large in the Northern Aegean. Despite its geographical uniqueness, Oinousses deservedly claims the title of the greatest maritime homeland. The tiny island can undoubtedly be proud of its maritime history since many of the world's most renowned shipowners and seafarers, who now live and have their offices across the globe, began their careers on this rocky island.



Some of the Greek shipowning world's biggest names and national benefactors come from this barren and tiny homeland.

The Merchant Marine Academy has been operating on the island for several years. After all, how could a place of such significance, which ensures the continuity of the country's maritime tradition and gives life to the island's municipality during difficult winter times, not have a public school for seafarers?

From early on, Oinoussians residing in Athens and abroad had put the island's development and the support of its remaining community at the center of their attention. In that context, it is essential to mention the Oinoussian Friends Association's (OFA) contribution to the educational, cultural, and other needs of the island's society. The Association completed 90 years of existence, while its supporters and benefactors in Athens, Piraeus, and London boost its contribution to the island's needs. Taking occasion of the special survey on the "Oinoussai III," (a vessel owned and managed by OFA), which took place in one of Perama's shipyards, *Naftika Chronika* spoke with OFA's president Ioannis G. Lygnos about the Association's history, its initiatives, and the current needs of this border island.

(\*) Carried out on the 29th of September 2020





The Oinoussian Friends Association has taken many important initiatives to support the local Oinousses community. What are its current actions?

Oinoussian Friends Association is a public benefit association created 90 years ago to meet the needs of the island. Its board of directors comprises of nine members, each of whom has a different area of action. The Association has been supported by many important people who have all contributed significantly to its goals. Its main interests are raising funds to support the island's financially weak, offering medical aid to all its residents, and contributing to other sectors such as promoting cultural activities. OFA is internationally acclaimed, and I can safely say that its impact on the local community is equal to that of the Oinousses Municipality.



The Master of the vessel with members of the Association



The vessel's committed Engine Officers

It plays a vital role in filling any gaps that the municipality cannot immediately address, always in cooperation with the London-based Oinousses Benevolent Fund. The Municipality, OFA, and Oinousses Benevolent Fund cooperate in perfect harmony so that the local community can prosper. One of the most critical projects OFA has supported was the desalination project, which is now fully operational and provides the island with ample water. For many years, we had been facing water shortages. Desalination was mainly the municipality's work, but OFA definitely contributed to its completion. Another critical project taking place on the island concerns public transportation, which is extremely important to us. Quite often, there are cancellations due to severe weather alerts, which make the island suffer greatly. For better or worse, our tiny island community is entirely dependent on the nearby island of Chios.



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How does the Oinoussai III serve the needs of the local community? What is the vessel's history?

At first, the coastal route between Chios and Oinousses was served by a private company - a private operator with its own ships. Then, OFA, with the help of all Oinoussians and the London-based Oinousses Benevolent Fund, bought the "Oinoussai I" and later the "Oinoussai III."

OFA's primary goal is to support a vessel that serves the Chios-Oinousses route regularly and uninterruptedly. The vessel operates daily except for Sundays, and the island's residents can travel on it free of charge. The Greek Ministry of Maritime Affairs and Insular Policy subsidized the vessel for operating this particular line.

How substantial is this government-subsidized public service?

It is quite substantial because it entitles the island's permanent residents and people registered with the Oinousses Municipality to travel free of charge on the vessel (excluding car and freight transportation). Therefore, Oinoussians can travel to and from the island for free, except on Saturdays, when there is a small fee.

The vessel also allows same-day excursions from Chios on Sundays; this year, due to the Covid-19 pandemic, we have cooperated a lot with local agents in Chios, mainly on matters related to transporting cars. The 24 hours a day operation of the "Oinoussai III" is invaluable, as it gives the island's residents a sense of security in the event of an emergency. Although the island also has sea taxis for our immediate transportation, the vessel can navigate in even the most challenging sea conditions. All in all, the local

community feels secure as the vessel is not only based in Oinousses but also remains overnight at the island. Now that the vessel is being subjected to its special survey, its absence is strongly felt. For as long as the vessel remains in the shipyard, we have chartered another ship, St. Nikolas, which will fill the gap.

Why did you opt for a small Greek shipyard for the vessel's special survey instead of a Turkish one, which would be closer and cheaper?

In general, we choose to make the trip to Perama, despite the long distance. We choose Greek shipyards with skilled artisans we have already worked with to ensure that there will be mutual trust and understanding. Here in Perama, there are a lot of good quality shipyards.







# Tradition of Excellence



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# Maritime Numbers

**31%**

the rate of fulfilment of China's trade deal commitments to the U.S. in the period from January to August, according to BIMCO

**14,019**

the number of ships that crossed the Suez Canal between January and September, according to the Suez Canal Authority

**3%**

the expected reduction in natural gas demand for the remainder of 2020, according to IEA

**174**

meters, the length of "Global Mercy," the world's largest civilian hospital ship

**1,420,000**

the number of orders placed with South Korean shipyards in compensated gross tons (CGTs) in Q3, according to Clarkson Research Service

**32.64%**

the percentage of the world tanker fleet controlled by Greek shipowners

**132**

the number of piracy incidents reported in the Gulf of Guinea during the first nine months of 2020

**1,287,109 TEUs**

the throughput of Piraeus Terminal during Q3 2020

42  
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