



# THE DANSHIP NEWS

A SEMI-ANNUAL EDITION OF DANAOS SHIPPING CO. LTD.

ISSUE #22, JANUARY 2022

## CMA CGM Nerval transported Lady Liberty's "Little Sister"

Our good charterers CMA CGM arranged for our containership CMA CGM Nerval to transport Lady Liberty's "Little Sister" for a crossing from Le Havre to New York and Washington, D.C. 135 years after the iconic "Liberty Enlightening the World" was unveiled on Liberty Island, another Statue of Liberty is set to cross the Atlantic, in a container specially designed, retracing the journey made over a century ago by its big sister.

The arrival of mini Lady Liberty in the US celebrated the most central value of the French-American partnership, which is freedom, and we are very proud to be part of this incredible adventure!

*Tania Mermiga  
Media & CSR Manager*



## The Statue of Liberty

It's a masterpiece, one of the most recognisable artworks in the world and one of the greatest achievements of design and construction of the 19th century. The story behind it, is of a great importance and even today attracts our attention, as it symbolizes high ideals and carries important historic facts.

It is the Statue of Liberty. Its formal name is Liberty Enlightening the World, located on Liberty Island, being 305 ft or 93 m high and weighs around 225 tons, including its pedestal. The initial idea of the Statue came in 1865 from a French historian, Eduard de Laboulaye and the construction made by the sculptor Frederic-Auguste Bartholdi.

It was initially a gift from the people of France to the people of the United States of America, given as a token of friendship, and it came along with the ending of the slavery era in the United States.

As it stands in the entrance of New York's harbour, it radiates inspiration to anyone entering or leaving New York city and symbolises the ideals of Liberty, Freedom and Progress. These ideals stem from its total structure. The Statue represents a woman, holding a



torch in her right raised hand. At the top of her head, she wears a crown, representing the light, along with its spikes, depicting sun rays spreading out to the world. In her left hand, she holds a tablet symbolizing the adoption date of the Declaration of Independence.

Finally, at the Statue's foot, a broken shackle and chains have been placed, giving a symbolic meaning for the end of slavery. It was constructed of copper layers, which were hammered by hand and it was assembled over a framework of four enormous steel supports.

The construction was completed in France in July 1884 and a very interesting part was the Statue's conveyance. The Statue of Liberty's passage across the Atlantic, was made with a frigate, named Iser. For this mission to be accomplished, the Statue was split in 350 different pieces and packed in 214 crates.

Finally, the ship arrived in New York harbour on June 17, 1885 and the final consecration took place on October 28, 1886.

*Katerina Nika  
Assistant Accountant*



## Message from the President & CEO

Dear Danaos Team,

Finally, it looks that we are nearing the end of the pandemic in most western countries. Unfortunately, the same does not hold for Asia and the Far East that still stringent Covid measures render repatriation of our crew extremely problematic.

Apart from this black spot, the other facets of our business are doing very well. The increased product demand coupled with inefficiencies of the supply chain have rendered the ships as a very valuable asset.

The returns we have from this exceptional year are leading us into exploring new projects and more growth opportunities. This is a testament that Danaos will be strong and bigger year by year to ensure the employment of all the Danaos Team for the years to come.

We have also to mention with sadness the geopolitical games in Russia and Ukraine which we believe do not touch the strong bonds of the individual people and can only hope that everything is resolved peacefully.

I wish you all health and happiness for the New Year for you and your beloved ones.

Best Regards,  
John Coustas



## Message from the Senior Vice President & COO

Dear Colleagues,

Shipping plays a vital role in the economy by creating jobs, fostering innovation and delivering essential goods globally. Shipping transports consumer products; manufactured equipment and vehicles; supports the national defense; generates and delivers energy; and offers services that underpin economic growth. We share a fundamental commitment to all of our stakeholders. We commit to:

Delivering value to our customers. We will further the tradition of providing container tonnage leading the way in meeting or exceeding customer expectations.

Investing in our employees. This starts with compensating them fairly. It also includes supporting them through training and education that help develop skills for a rapidly changing industry. We foster diversity and inclusion, dignity and respect.

Dealing fairly and ethically with our suppliers. We are dedicated to serving as good partners to the other companies, large and small, that help us meet our missions.

Supporting the community of seafarers. We respect the people in our industry and protect the environment by embracing sustainable practices across our ships.

Generating long-term value for shareholders, who provide the capital that allows our company to invest, grow and innovate. We are committed to transparency and effective engagement with shareholders.

Each one of our stakeholders is essential. We commit to deliver value to all of them, for the future success of our company, our employees and our industry.

Iraklis Prokopakis

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## Loss of Our Esteemed Colleague

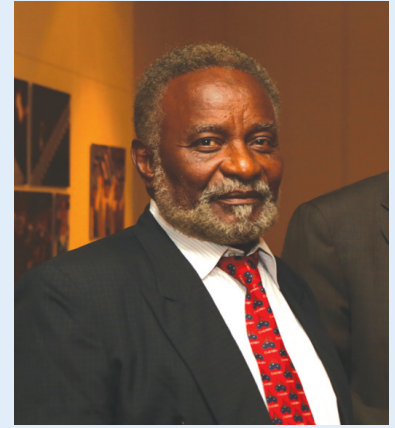
Dear Colleagues,

It is with Great sorrow that I have to announce the loss of Ali Mzee, after a month long fight with Covid. Ali was the longest serving member of the Danaos family, having joined the M/V Amalia as an AB in 1965. He has since served the company uninterrupted until today by having his children continue his legacy. He founded the Zanzibar office and helped us develop our Academy and build a substantial pool of first class Tanzanian seafarers. He will be long remembered for his devotion and commitment to the Danaos family.

I would like to convey our deepest condolences to his family on behalf of all of us.

May he rest in peace.

John Coustas



## Mr. Iraklis Prokopakis is the “Best Manager of the Year”



The 13th Annual Efkranti Awards, organized by the “Naftika Chronika” publications, under the auspices of the Aikaterini Laskaridis Foundation, took place yesterday and Mr. Iraklis Prokopakis, COO & Senior Vice President of Danaos Corporation was awarded with the “Best Manager of the Year 2020” award.

Mr. Prokopakis stated among others: “First of all, I would like to thank the voting panel for honouring me today, and to express how moving this moment is to me, because more than 50 years ago at this very square of the Hellenic

Naval Academy I started my journey as a 1st year Naval Cadet of the Hellenic Navy.

In a world that is constantly changing at a great speed, I always considered continuous learning and education to be my most important tasks as a Manager. At the same time, I have always believed that it is necessary for any business today to respect and produce value for all -not only for its shareholders- but also for its employees, society and the environment.

And this the culture we are trying to establish in Danaos.

Thanks again for honouring me today.”

## New Ladies Joined our Fleet

We are delighted that 6 eco-design wide beam sister ships of 5,466 TEU with improved fuel consumption and load efficiency characteristics, have just joined our fleet! We welcome M/V Wide Alpha, M/V Wide Bravo, M/V Hotel, M/V Wide Juliet, M/V Wide India and M/V Maersk Euphrates and we wish them fair winds and following seas.



## Call to Action for Shipping Decarbonization

Danaos joins as signatory to Call to Action for Shipping Decarbonization, by calling on world leaders to work together with the private sector to deliver the right enabling environment to achieve this goal.

## Danaos Shipping Co. Ltd. - Annual ISM/DOC Audit Seamless with ISO 9001, ISO 14001 and ISO 50001 Audit

The annual office audit conducted by the DNV took place on 4-5 November 2021 in order to verify the compliance of DANAOS Safety Management System with the ISM requirements as well as with environmental, quality and energy ISO standards.

We highly appreciate the efforts made by all of those onboard and ashore who aided in the successful and positive outcome.

SQE Department

## Newly Joined

We welcome:

**Ermioni Chartokoli**  
Supplies Operator

**Anastasia Kosmou**  
Electrical Coordinator

**Krunal Javia**  
Finance Manager

**Renat Mazaev**  
IT Onboard Coordinator

**Nikolaos Mossos**  
IT Coordinator

**Michalis Zoumis**  
Assistant Fleet Manager

**Panagiotis Thanos**  
Assistant Fleet Manager

**Nikolaos Karellas-Meraklidis**  
Junior Superintendent Engineer

**Athanasios Gonis**  
Deputy Operations Manager

**Dimitrios Georgoulis**  
IT & Data Analytics Auditor

**Evangelos Loukas**  
Deputy Operations Manager

**Nikolaos Kalaitisidis**  
Assistant Accountant

**Georgios Rodopoulos**  
Fleet Coordinator

## 13<sup>th</sup> Annual Capital Link New York Maritime Forum

Dr. John Coustas joined the “Shipping - Is it all Glitter & Gold” panel and described the current market as being “Gold” and something that had not happened before in container shipping. A combination of factors like systemic under-ordering for many years, the depletion of inventories during the pandemic and the inefficiency of supply chains have resulted in the current situation of a saturated transport system. The industry has reacted by the substantial ordering of new vessels which however will only hit the water from 2023 onwards giving little relief to the current situation. Dr. Coustas believes that we will continue to have a strong market at least until early 2023. The current order-book although at 23% of the fleet does not compare to the 60% in 2008. In addition the liner companies are making incredible amounts of money, in contrast with 2008, which means that our counterparty risk is almost eliminated.

The other wildcard is the environmental regulations. This is why Danaos at present refrains from new ordering and concentrates in debt reduction. The industry must get clarity on the future of green fuels. It will be a grave mistake to use now grey fuels that in the end will have a negative CO2 balance compared to the primary use of the fossil fuel energy.

## 22<sup>nd</sup> Marine Money Annual Ship Finance Forum

Marine Money continues its safe return to in-person events, together with partner DNB as the participants gathered for the first time in two years in NYC for Marine Money’s 22nd annual November Ship Finance Forum.

Dr. John Coustas was a panelist at Shipowners Forum and discussed the capital allocation in 2022, the preparation of today for the next shipping cycle and the distinguishing factors that set shipping companies apart.

It was a fruitful conversation and it felt so good that it was held in-person after such a long time!



## 23<sup>rd</sup> Marine Money Greek Shipping Finance Forum



Mr. Iraklis Prokopakis, Senior Vice President & COO of Danaos Corporation, participated in the 23rd Marine Money Greek Shipping Finance Forum in Athens, which took place with the physical presence of the attendees.

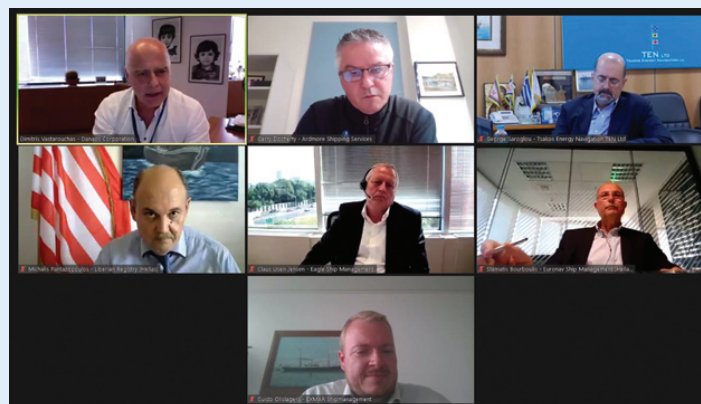
The panel, titled “Shipping Prospects are stronger than for a decade: the new responsibilities of shipping”, discussed among others the developments in the shipping market, the decarbonisation and the capital markets.

## 11<sup>th</sup> Annual Operational Excellence in Shipping Forum

Capital Link hosted the 11th Annual Operational Excellence in Shipping Forum as a digital conference and Mr. Dimitris Vastarouchas, Deputy COO of Danaos Shipping, joined the panel on “Optimizing Fleet Management in the Post Covid-19 Era - Lessons Learned & Experiences Gained”.

According to Mr. Vastarouchas, although Covid-19 had an immediate effect on physical on-board attendance, inspections and dry dockings, it was again technology that offered solutions through instructed inspections from the crew via web meetings.

He continued by conveying that Danaos is strongly embracing technology and Artificial Intelligence in paving its way into the future, by proceeding towards full digitalization of internal functions. This enhances both remote crew and office personnel training and creates new organizational and operational structures, communication approaches, blockchains and joint initiatives with stakeholders. Our ultimate goal is to improve performance, educate people, control GHG emissions and preserve the industry’s sustainability.





# On the Way Towards Unmanned Vessels

ARTICLE

In early December 2018, the Rolls-Royce company introduced, according to its claims, “the world’s first fully autonomous ferry”. Its capabilities were demonstrated during a trip between Parainen and Nauvo in Finland. The ferry was a product of the SVAN (Safer Vessel with Autonomous Navigation) research project, which Rolls-Royce has been developing since May 2018 in collaboration with the Finnish state-owned company Finferries. By the beginning of December 2018, the collaborators had tested the vessel for 400 hours in the Turku archipelago. Admittedly, this project can hardly be called a full-fledged implementation of the “unmanned vessel” concept, but the first steps in this direction have been taken.

Generally speaking, the current relevance of the issues of increasing the vessel’s autonomy degree (with a gradual shift to unmanned vessels in the future) depends on two most important reasons. The first one is the elimination of “human factor”. It is the “human factor” that causes the greater part of accidents and sea-wrecks. As facility designs and principles of functioning and control systems are constantly getting more complicated, they call for more expertise, as well as increased span and focus of attention from operators. A never-ending flow of information leads to a greater probability of making a wrong decision. The second reason is the reduction of operating expenses. The monthly crew allowance amounts to tens of thousands of dollars, so there is no surprise that shipowners strive to lay off as many crew members as possible. At the same time, the planned maintenance system, which is mandatory for marine vessels, requires significant financial and labor expenditures. The new diagnostic and prediction systems will enable a condition-based maintenance, which in turn will reduce the crew’s load and the

costs of maintaining and restoring the technical condition of the vessel’s facilities, as well as minimize the occurrence of emergency situations, while increasing the ship equipment resource.

Addressing the problems of diagnosing and assessing the state of certain facilities and systems is based on constant monitoring of parameters. Therefore, the use of modern integrated automatic control systems (ACS) for vessels, capable of collecting and transmitting information online to any interested party’s data centers (e.g., those of Classification Society, a shipowner, a charterer) for further processing will give undeniable advantages to their users. It is only on the basis of continuous statistical processing of the current information from vessel SCADA-systems that the use of predictive technologies becomes possible. Speaking of the predictive technology, it is impossible to put aside another innovative development – neural networks. An analytical and statistical method of processing all the current controlled parameters should be based on machine learning methods. Only in such configuration, predictive diagnostics is able to cope with the tasks of predicting the state of such complex technical systems as a marine vessel.

The prospects for managing the operation of ships in the 21st century are associated with a conceptual shift. From the “to react and tackle the identified problems in the course of real maritime practice” idea, the advanced maritime industry proceeds to a new one: “to predict and anticipate them”. The implementation of this concept is a huge step forward on the way towards the “unmanned vessel” project realization.

*Evgeny Filippov*

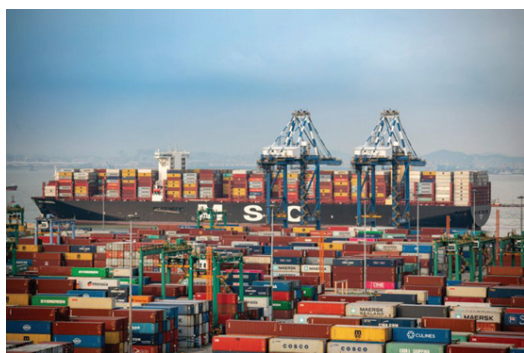
*Chief Engineer, Danaos Russia*

# What Are the Main Supply Chain Challenges?

ARTICLE

The COVID-19 pandemic has had a destabilizing effect on global shipping, driving up the cost of moving containers of goods around the world. This has resulted in rising prices of goods and enormous delays at ports and logistics hubs, severely disrupting supply chains around the world.

In this article we identify the four main challenges for the ongoing global supply chain crisis.



## 1. Consumer demand has skyrocketed

Consumer spending collapsed as the first wave of the pandemic swept across countries in early 2020. Lockdowns and social distancing shifted consumer demand away from services toward durable goods, while an increase in disposable income stimulated consumption expenditure. By March 2021, consumers were spending record amounts of money, and global demand for consumer goods has been rising ever since.

While this is positive in economy terms, the consumer frenzy has led to supply chain bottlenecks for many products.

## 2. Lack of manpower

Although consumer demand is rising, low

COVID-19 vaccination rates among actors in key parts of global supply chains tend to cause significant production delays. Vietnam, for example, plays a key role in the apparel and footwear industry, as the second largest US supplier after China. Yet, less than 12% of the country’s population is fully vaccinated, and many factories have been forced to close for extended periods of time due to COVID-19 cases among workers and government lock downs.

Failure to vaccinate more people in developing countries faster means that labor shortages will continue to plague supply chains for some time to come.

## 3. Lack of containers

The insatiable demand for more goods has another consequence: empty containers accumulate in the wrong places. China is sending out a lot more exports to the rest of the world than the other way round. As a result, containers are stuck in the West when they are really needed in Asia. In those places, empty containers have piled up just as Chinese factories have been producing a mighty surge of other goods destined for wealthy markets in North America and Europe. This shortage has pushed up significantly the price of shipping containers over the last year, which in turn has resulted in higher goods prices for the consumer.

## 4. Congestion of ships in ports

Port congestion creates pressure on cargo owners, shipping lines, and in turn on port management. The world’s largest shipping hubs are suffering elevated levels of congestion as containers pile up at seaports. With

record numbers of huge cargo ships stuck at key ports, consumers could face a shortage of items, including clothing, electronics, toys, and furniture.



Shortages and delays are likely to affect this year’s Christmas and holiday shopping season by making it much harder to find key goods. Many companies placed early orders, which is exacerbating the shortages, sending higher volumes of goods toward ports and warehouses. Although no one really knows when these shortages of goods will come to an end, it is anticipated that the global supply chain will see significant improvement by the second half of 2022.

*Tania Mermiga*

*Media & CSR Manager*

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# COP26: The world will have to get Decarbonized... Yesterday!

ARTICLE

Recently, we all heard the term “COP26”. You may know that it is related to the environment but what exactly does it stand for and how will it affect our lives in the next years? For nearly three decades the UN has been bringing together almost every country on earth for global climate summits – called COPs – which stands for ‘Conference of the Parties’. This year we had the 26th annual summit – giving it the name COP26. The Shipping industry will be affected massively as it is one of the biggest target groups of the COP26 goals.



“After 13 days of intense negotiations, COP26 concluded on Saturday 13th November 2021 with every Party at COP26 - representing almost 200 countries - agreeing the Glasgow Climate Pact. This global agreement will accelerate action on climate this decade, and finally completes the Paris Rulebook.”

The Glasgow Climate Pact is in fact a packet of commonly agreed directives in order to limit the rise of global temperature to 1.5°C over the next decade. Climate change is the ultimate environmental and security destabilizer, exacerbating extreme weather, drought, wildfires, and sea level rise. Climate change is already destabilizing many parts of the world. Reducing greenhouse gas (GHG) emissions from human activity is now inextricably linked to broader security concerns. The Glasgow Climate Pact consists of 94 paragraphs and eight thematic subparts which are outlined as follows. In each of them, I have highlighted the key points and what to look for in the future.

**1. The Rise of “Mitigation Ambition”.** Since the first U.N. Framework Convention on Climate Change, international negotiators have focused on reducing each nation’s GHG emis-

sions pumped into the common atmosphere. Now, COP26 accelerates the timeline for nations to strengthen their mitigation plans by the end of 2022. Generally, this implicates plans on phasing down coal power, halting and reversing deforestation, speeding up the switch to electric vehicles and reducing methane emissions.

**2. The Mission to “Keep 1.5 Alive” is in danger.** The 2015 Paris Agreement sought to limit the global temperature increase to 1.5 degrees Celsius above preindustrial levels and the global temperature increase “well below” 2.0 degrees Celsius. Exceeding this threshold leads to irreversible, catastrophic harm. In a nutshell, to have a chance of meeting this 1.5 degree goal, the world has just 98 months to cut worldwide GHG emissions in half!

**3. Increased Focus on Adaptation Finance.** Climate adaptation is broadly defined as modifying behaviours or systems in the face of climate change. This includes investing in climate-resilient infrastructure or retreating from climate-exposed coastal or wildfire zones. All major coal financing countries have committed to end international coal finance by

the end of 2021. At COP26, 34 countries and 5 public finance institutions committed to end direct public support for the international unabated fossil fuel energy sector by the end of 2022, which may free these funds in the private sector for deployment in renewable energy.

**4. The Coal “Phase-Down”.** The calling out of both coal power and fossil fuel subsidies is a departure from prior U.N. climate agreements. But the language here is significant: the initial text used the term “phase-out,” but this was changed to “phase-down”. Further, the pact does not reference oil or natural gas as part of this phase-down. One of the lingering questions after Glasgow is how and whether fossil fuel companies will respond to the phase-down of coal and removal of fossil fuel subsidies.

**5. Minimal Progress on Loss and Damage.** Tragically, developing nations contribute the fewest GHG emissions but have historically suffered the most from climate impacts. The Glasgow Climate Pact addresses this inequitable climate reality. Wealthier, developed nations are more likely to have the resources to rebuild following extreme weather events and other climate-related disasters. Many observers hoped that Glasgow would breathe life into these provisions through concrete financial commitments, but this did not occur.

**6. Continual Trust Deficit Between Developed and Developing Nations.** More than a decade ago, developed nations pledged \$100 billion annually by 2020 to assist developing nations in transitioning to greener economies. This promises also fell short. The Glasgow Climate Pact highlights this failure “with deep regret” while urging greater clarity and transparency as developed nations will not follow through on this financial commitment until 2023.

**7. The Surprise China-U.S. Pact.** Any substantive climate progress increasingly leads through China, which accounts for nearly a third of all current GHG emissions. In a joint declaration issued during the Glasgow negotiations, China and the U.S. agreed to take steps on a range of issues, including methane emissions, transition to clean energy and decarbonization. At this point, we all will welcome any progress from the world’s largest historical emitter (the United States) and the largest current emitter (China).

**8. The Tragic Plight of Small Island Developing States:** For many small island nation-states, climate change is the defining security issue. Twenty percent of some island nations’ landmass will disappear by 2040, and climate scientists estimate that climate change-driven sea level rise and wave-driven flooding will cause four island nations to disappear this century. What is balanced and pragmatic to other parties will not help those islands adapt in time and it may be too late when we realise.

Still, while plans are important, implementation and execution will determine future climate progress. All eyes will be on COP27 in Egypt next year to examine these plans and assess what actions have been taken since Glasgow.

## External Audits

We are pleased to advise that the following vessels under our management have successfully passed 3rd-party ISM/ISPS audits for the period 11 May till 19 November 2021:

Vessel	Port	Non-Conformity	Observation
AMALIA C	Kaohsiung	NIL	2
BRIDGE	Singapore	NIL	NIL
C HAMBURG	New york	NIL	1
CMA CGM ATTILA	Houston	NIL	NIL
EXPRESS ATHENS	New york	1	NIL
EXPRESS BLACK SEA	Piraeus	NIL	NIL
EXPRESS ROME	New york	NIL	NIL
HIGHWAY	Singapore	NIL	NIL
PROGRESS C	Hong kong	NIL	1
RIO GRANDE	Pusan	NIL	1

The above findings have been evaluated in order to take proper corrective and preventive actions so as to avoid recurrence.

At the same time the following ships underwent 3rd-party ISO 14001 audits successfully:

Vessel	Port	Non-Conformity	Observation
CMA CGM ATTILA	Houston	NIL	NIL
EXPRESS BLACK SEA	Piraeus	NIL	NIL

Thank you for your continuous support.

SQE Department

Katerina Katsiada  
PA to the COO



# The Rise of Charter Rates in the Containership Market

ARTICLE

Amidst the Covid-19 pandemic, an unexpected event has occurred in the shipping industry. Since the second quarter of 2020 a series of events have made the shipping industry and especially the containership market skyrocket. Charter rates reached an all-time high in mid-September 2021 when it was announced that a 12 year old 4,250 TEU vessel was chartered for 195,000 - 202,000 \$ per day for 60 to 85 days. Danaos announced in the second quarter of 2021 a 62.1% profit increase since the year before. All this unexpected boom in the shipping industry has raised the following question: what are the reasons behind such a rapid profit increase and how did they affect the containership industry?

To fully explain all the possible reasons we need to look into some of the most important events that took and are still taking place in the world right now. According to the Clarkson Research Services Ltd, the shipping industry is posting its strongest daily earnings since 2008. After COVID lockdowns in several countries, the re-opening of the economy has spurred a surging demand for goods and raw materials. Alongside that, the virus continues to cause disruption in global supply chains, choking up ports, and delaying vessels, all of which is limiting how many of those are available to haul goods across oceans. In China the Yantian port, the third world's biggest port that handles daily 40,000 TEU, was closed for 3 weeks due to Covid outbreak. Meanwhile, the Ningbo-Zhoushan port was shut down for 2 weeks, stretching the supply chains and making all the major chartering companies (MAERSK, CMA-CGM, Hapag-Lloyd) avoid the port and divert the shipments. The diversion caused a pile up that resulted in long customer delays. It needs to be mentioned that for the last 12 years, Ningbo port has served as the world's largest port by cargo tonnage, with the capacity to handle nearly 1.2 billion tons in 2020, according to China's Ministry of Transport. To bring it into perspective, that may be trans-

lated in approximately 46 million tons of cargo being delayed for the 2 weeks that the port was closed. According to experts, the worldwide delays created in the ports right now absorb about 10% of the global containership supply fleet.

Another reason charter rates have increased is containership shortages. As the demand for transportation of goods surges, supply of containers and containerships is growing slowly due to multiple factors. Firstly, we need to take into consideration the increase of consumption of goods in the US. It is the most important reason why there is such demand for imports from Asia (and mainly China) to the US. This high consumer appetite in US will steadily decline while inflation hits and higher manufacturing costs impact consumers. According to experts they expect charter rates to return to normal levels after the mid-2022. This is also driven by the disconnection between world's economic growth and demand for merchandise that has escalated the last few years with Covid-19 being the icing on the cake.

In the meantime, the shipyards are filled with orders up to 2024 and most of them will start delivering vessels from mid-2022 or even 2023. Not only that but also, the cellular order book to fleet ratio has skyrocketed from 8.5% last year to 22% creating the assumption that it could lead to overcapacity in 2024-2025. According to Clarksons the number of shipyards in the world has dropped since 2007 by two thirds, to about 115. If we add also the quarantines that occurred in the past year and a half due to covid-19 restrictions, it is clear that supply will take a long time to satisfy the evolving demand for vessels.

As Xavier Destriau, Chief Financial Officer of ZIM, said "The tight supply of vessels posed a potential major threat given that many companies have hesitated until this year to order new capacity, while many old ships are overdue for scrapping. We are looking at the potential risk of pressure on supply in terms of vessels.

We're talking three, four or five years along the line." Meanwhile, the containership market is so hot that Star Bulk owner Peter Pappas announced that he is transforming capsized vessels to containerships in order to benefit from the trend.

In the last year, freight costs between China and the US West Coast have increased by 156%, while China to the US East Coast trade lane saw an increase of 162%. Freight prices between China and North Europe gained the most, witnessing a 535% augmentation. As a result the cost of products has risen worldwide.

To conclude, the rise of charter rates the past year is an event that was driven by multiple factors that have affected the containership industry. CMA - CGM announced in mid-September that it will freeze charter rates until February 1st of 2022 in order to combat the imbalance between demand and maritime transport effective capacity. The only thing that remains is to see how the inflow of neo-panamax and other types of vessels will affect the imbalanced chain of supply in the next year, as well as how the inflation will reform the consumer spending in the upcoming months.

*Konstantinos Michalopoulos  
Technical Department Trainee*

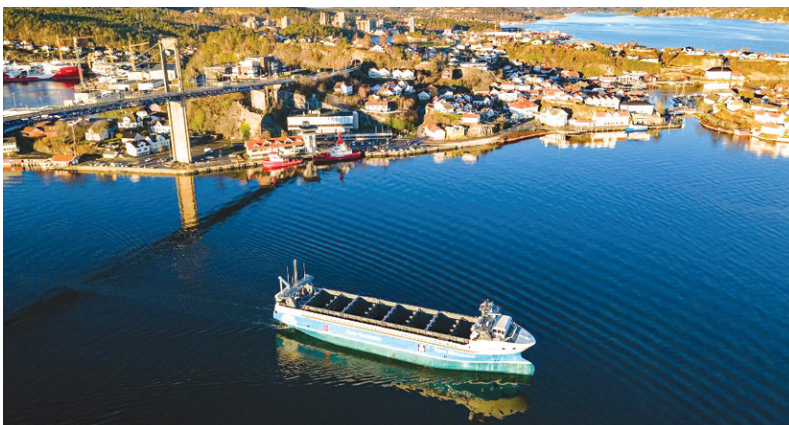
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# The World's First Emission-Free Container Ship

ARTICLE

The first autonomous zero-emission container ship Yara Birkeland has completed its maiden voyage in the Oslo Fjord. Developed in partnership with Kongsberg Group, Yara Birkeland was constructed by Vard with \$14.97m (Nkr133.5m) of financial aid from Enova.



The vessel's self-propelling capability is guided by GPS, radar, cameras and sensors so that the electric ship can navigate itself around other boat traffic and also dock on its own. It is expected to annually reduce 1,000t of carbon emissions as well as replace 40,000 trips taken by diesel-driven trucks.

In parallel with the construction of Yara Birkeland, Yara has initiated the development of green ammonia as an emission-free fuel for shipping, through the newly started Yara Clean Ammonia. The ship will now undergo a two year testing period of the technology, after which it will receive the certification of an autonomous, all-electric container ship.

*Tania Mermiga  
Media & CSR Manager*

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# Internal Control: A Necessary Evil or a Decisive Ally?



When we hear or read about Internal Control, most of the times our mind goes to finance and accounting activities, strong sets of policies and procedures, pointless rules and at the end the Internal Auditors mentioning to us that ... we should NOT do this.... We think of Internal Control, as the necessary evil, which takes time from our core activities and responsibilities. But is this a fact or just another myth we have gotten used to and never examined?

Well, despite of what we may think, Internal Control is related to everyone in the workplace. It represents our business and moral responsibility to understand and comply with company's policies and procedures, as well as to hold ourselves and one another accountable. The primary purpose of Internal Control is to help safeguard the company and achieve its objectives. Internal Control functions to minimize risks and protect assets, ensure accuracy of records, promote operational efficiency, and encourage adherence to policies, rules, laws and regulations.

Internal Control has existed from ancient times. In Hellenistic Egypt there was a dual administration, with one team of bureaucrats charged with collecting taxes and another with supervising them. In the Republic of China, the Supervising Authority, one of the five branches of government, was an investigatory agency that monitors the other branches of government. The American Institute of Accountants first defined the term Internal Control in 1949. A report by the Committee of Sponsoring Organizations (COSO) in 1992 and its revision in 2013, and the Sarbanes-Oxley Act of 2002 are more recent documents defining the Internal Controls.

As per COSO, Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to:

- Effectiveness and efficiency of operations.
- Reliability of financial reporting.
- Compliance with applicable laws and regulations.

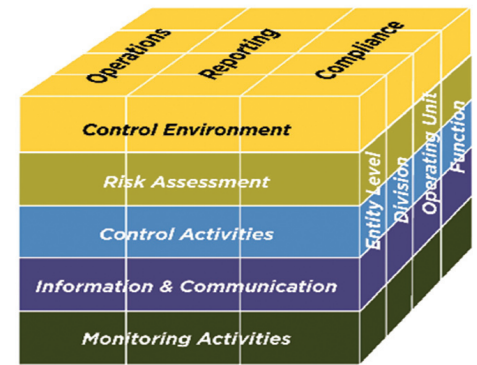
This definition emphasizes that Internal Control is:

- Directed at achieving objectives that can fall under one or more separate but overlapping categories – operations, reporting, and compliance.
- A process consisting of ongoing tasks and activities (not just checking a box one time) - It is a means to an end, not an end in itself.
- Conducted by people, from the board of directors to managers, to front-line employees. It is not simply about policies, procedure manuals and forms, but about people and the actions they put in place at all levels of the organization to achieve the specified objectives.
- Designed to provide only reasonable assurance, regarding the achievement of the Company's objectives (absolute assurance is not possible).

Several years ago, the Committee of Sponsoring Organizations (COSO), which is an independent, private sector initiative, was established in 1985 with the intent of improving the quality of financial reporting through a focus on corporate governance, ethical practices, and internal control. COSO subsequently published a report that is known as COSO's Internal Control-Integrated Framework.

The latest 2013 Framework presents the direct relationship that exists between i) the company's objectives, which is what the company strives to achieve, ii) the components of internal control, which represent what

is required to achieve objectives, and iii) the company's organizational structure, the system by which activities are directed in the pursuit of achieving objectives. This relationship can be depicted in the form of a cube.



The five internal control components, supported by 17 principles, which present fundamental concepts of each component, are the following:

**Control Environment:** The control environment is just that – the environment of standards, processes, and structures in the company. Together, these guide people at all levels in fulfilling their responsibilities for internal control and decision-making. A foundation of the control environment is the “Tone at the Top,” which tells employees what the company values and the importance placed on ethical, and honest behavior. It is set by the Board of Directors and Top Management and reinforced by leaders at all levels.

**Risk Assessment:** Management must determine which risks are possible and which risks can be tolerated. Risk assessment is a dynamic process based on objectives, although sometimes (like with financial reporting) there are external requirements that must be taken into consideration as well.

**Control Activities:** Control activities are the policies and procedures that take place to ensure risks are minimized and objectives are accomplished. It is important to understand the why behind the control. Remember, controls do not prevent fraud or errors – it is the people that effectively understand and execute those controls daily.

**Information & Communication:** Relevant and quality information is essential to fulfill internal control responsibilities and achieve objectives. Internally, communication allows employees to understand their internal control responsibilities, potential risks, the “Tone at the Top” and the objectives of the company. Externally, the company can obtain and share relevant information with all its stakeholders.

**Monitoring Activities:** Monitoring is performed to assess the effectiveness of the controls and determine if a change is needed. Unmonitored controls tend to break down over time, so monitoring is needed to identify and correct potential issues timely. In addition, the system of internal control will evolve as objectives change or controls become obsolete. If controls are created and then unmonitored, then the functioning system is likely to break down at some point.

Generally speaking, there are two basic types of Internal Controls, the preventive and the detective. As we perform routine processes, or when we are thinking of implementing a new procedure or process, it is important to ask the following questions to help determine the appropriate controls:

- What could go wrong?
- What steps have been taken to ensure that something does not go wrong?
- How can you verify that nothing went wrong?

The answers to these questions will enable us to better target the type of



control that is needed. Both types of controls are essential to an effective internal control system.

**Preventive Controls** are more cost-effective than detective controls and are designed to discourage errors and irregularities from occurring. When built into a process, preventive controls forestall errors and thereby avoid the cost of correction. Examples of preventive controls are:

*Segregation of Duties:* Duties are segregated among different people to reduce the risk of error or inappropriate action. Normally, responsibilities for authorizing transactions (approval), recording transactions (accounting) and handling the related asset (custody) are divided;

*Approvals, Authorizations, and Verifications:* Management authorizes employees to perform certain activities and to execute certain transactions within limited parameters. In addition, management specifies those activities or transactions that need supervisory approval before they are performed or executed by employees. A supervisor's approval (manual or electronic) implies that they have verified and validated that the activity or transaction conforms to established policies and procedures;

*Security of Assets (Preventive and Detective):* Access to equipment, inventories, securities, cash, and other assets is restricted. Assets are periodically counted and compared to amounts shown on control records.

**Detective Controls** are usually more expensive than preventive controls, but are also essential, and are designed to find errors or irregularities after they have occurred. Detective controls measure the effectiveness of preventive controls. Also, some errors cannot be effectively controlled through a system of prevention; they must be detected when they occur. Examples of detective controls are:

*Reviews of Performance:* Management compares information about current performance to budgets, prior periods, or other benchmarks to measure the extent to which goals and objectives are being achieved and to identify unexpected results or unusual conditions that require follow-up;

*Reconciliations:* An employee relates different sets of data to one another, identifies and investigates differences, and takes corrective action, when necessary;

*Physical Inventories:* Management periodically conducts counts of physical inventory, cash, and other assets, and compare them with accounting records.

But who is responsible for all the above work to be properly done, someone would ask? As the definition says, Internal Controls depend on the participation of all employees at every level. Therefore, all of us share the responsibility of establishing and following appropriate policies and procedures on internal control. Company's Management is responsible for establishing and maintaining the internal control environment and in a more artistic language, Management is the Maestro who gives the correct guidance for the Orchestra to accomplish the performance in the most efficient way. That is why, every employee, as every member of the orchestra, plays a critical role in either strengthening or weakening the company's internal control system and need to be aware of the concept and purpose of Internal Controls. At the end, internal auditors play a crucial role by performing evaluations and making recommendations for improved controls.

An effective control environment is an environment where competent people understand their responsibilities, the limits to their authority, and are knowledgeable, mindful, and committed to doing what is right and doing it the right way. They are committed to following the company's policies and procedures and ethical and behavioral standards.

*The achievements of an organization  
are the results of the combined  
effort of each individual.*

*Vince Lombardi, American football coach*

As a director/manager/employee of a department, we can do the following to enhance our department's control environment:

- Make sure job descriptions exist, clearly state responsibility for internal control.
- Implement segregation of duties where duties are divided, or segregated, among different people to reduce risk of error or inappropriate actions.
- Make sure transactions are authorized by a person delegated approval authority.
- Ensure records are routinely reviewed and reconciled by someone other than the preparer or approver, to determine that transactions have been properly processed.
- Make certain that inventories, cash, and other property are secured physically, counted periodically, and compared with items shown on control records.
- Provide employees with appropriate training and guidance to ensure they have the knowledge necessary to carry out their job duties and are aware of the proper channels for reporting suspected improprieties.
- Make sure company's policies and operating procedures are formalized and communicated to all employees.
- Make sure that employees comply with the Danaos Code of Business Conduct & Ethics and disclose potential conflicts of interest.
- Make sure employee performance evaluations are conducted periodically. Good performance should be valued highly and recognized in a positive matter.
- Make sure that appropriate counseling and/or disciplinary action is taken when an employee does not comply with policies and procedures and/or behavioral standards.

The company's objectives are best achieved when everyone involved is working towards a common goal. Internal Controls are integral to every aspect of business, and they are not only about finance, accounting, or internal audit. Internal Controls are not an obstacle in our everyday work life, something that bothers us and reminds us of what we do wrong. Instead, they are an ally. An ally who assists both us and the company for accomplish goals in the most efficient and legitimate way.

*Eleni Hatzitriantafillou  
Assistant Internal Auditor*

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Committee of Sponsoring Organizations (COSO)

# Quick Overview of Shipping 2021

## “Seafarers recognized as key workers”

Despite the fact that the seafarers are always at the front line of any health crisis, it is the first time they have been recognized as “Key Workers”. Keeping the shipping and the trading industries alive under these stressed pandemic circumstances, in contrast with most governments that had no emergency response plan in place for this situation.

There have been reported hundreds of thousands of seafarers stranded at sea and we are in need of flexible regulatory framework related to crew changes.

It seems that the pandemic will continue

for an unknown period, therefore, the risks of fatigue, safety, health, welfare including compliance with the international maritime regulations will last for a longer period.

Considering the above, it seems that the seafarers will remain vulnerable for the forthcoming period since the crew changes are being affected by many reasons such as the local and border lock downs and the shortage of international flights.

## “International law and technology”

Due to the COVID-19 pandemic, the international trade and the contractual agreements

have been affected by the delays and supply-chain disruptions creating international jurisdictional issues. Governments and industries are in need of cooperation for the optimum contractual rights and obligations of the concerned commercial parties and the establishment of new contractual clauses for the fair commercial risk-allocations. Moreover, many problems are associated with the document delays therefore we are in need of adopting new electronic solutions.

*Cpt. Nikos Polymeris  
Deputy Training Manager*

## Shipping Goes Green

ARTICLE



Climate change is drawing global attention as it has affected the economy, society, and the environment. All over the human activities result in increase of concentrations of natural greenhouse gases, causing bigger problems. The climate change has environmental, social, and economic consequences. First of all, the temperature of the

earth will increase. As a result, there will be evaporation and precipitation with some regions becoming wetter or dryer. Moreover, sea level will rise because of the melting of ice (Nasa)<sup>1</sup>. Sea level has increased by approximately eight inches since 1880. It is forecasted to rise 1 to 8 feet more until 2100. Moreover, there will be more droughts and heat waves (Nasa)<sup>2</sup>. Also, there have been more and more heat and cold related deaths. Furthermore, there are differences in the distribution of some water-borne illnesses. The harmfulness to human health is costly on a social, environmental, and global level. During the period of 1980 to 2011 floods had affected more than 5.5 million people, costing more than €90 billion (Europa.eu). Last but not least, sectors of the economy that are based on the Earth's temperature like agriculture, energy and tourism are mainly affected<sup>3</sup>. Nowadays it is something visible and human activities contribute to this becoming worse. Due to this situation the Paris Agreement was adopted.

Shipping is the most efficient mode of transport because of the economies of scale. However, the Shipping industry pollutes the environment through its exhaust gases. In a marine engine the marine fuel is burned with the oxygen of the air and the necessary mechanical energy is produced for the movement of the ship, thermal energy is released, and exhaust gases are emitted<sup>4</sup>. Exhaust emissions that originate from the operation of ships which have diesel machines emit mainly nitrogen (N<sub>2</sub>), oxygen (O<sub>2</sub>), water vapour and carbon dioxide (CO<sub>2</sub>). They emit carbon monoxide (CO), sulphur oxides (Sox), oxides of nitrogen (NO<sub>x</sub>), unburned hydrocarbons (C<sub>x</sub>H<sub>y</sub>) and airborne particles (PM<sub>10</sub> and PM<sub>2.5</sub>)<sup>5</sup>. For this reason, action must be taken by those who are engaged in this industry. Total shipping CO<sub>2</sub> emissions seem to have changes (increase/decrease). From 2012 to 2013 there has been a decrease but from 2013 to 2017 emissions have increased every year. During the period 2017 to 2018 there has been a decrease in CO<sub>2</sub> shipping emissions). (Resource: Fourth IMO GHG Study 2020).

In order to help in the effort of climate change the International Maritime Organization adopted the GHG strategy. The Green House Gas (GHG) strategy promises the reduction of CO<sub>2</sub> emissions per transport work, as an average across international shipping, by at least 40% by 2030 and 50% by 2050, in comparison with 2008<sup>6</sup>.

The prospects of Zero-Carbon Bunker Fuels for Decarbonizing Shipping industry are the following: Biofuels, Hydrogen, Ammonia and Synthetic carbon-based fuels. Green ammonia and hydrogen appear to be the most promising zero-carbon bunker fuel for shipping to date. Also, LNG is not very important in the transition toward low- and zero-carbon shipping, being mostly used in niche applications. Furthermore,

Natural gas could play an important enabling role for zero-carbon bunker fuel production. Last but not least, many countries that have not been traditional energy exporters, including many developing countries, could enter the future market for zero-carbon bunker fuels from 2030<sup>7</sup>.

In order to achieve sustainability globally the United Nations adopted the 2030 Agenda for Sustainable Development, containing seventeen (17) Sustainability Goals (SDG's). From the side of the shipping industry, the IMO as a member of the United Nations, contributes to SDGs through its regulations and conventions<sup>8</sup>. When it comes to sustainability of the environment the IMO has adopted many of them like Convention for the Prevention of Pollution from Ships (MARPOL), Regulation “IMO 2020”, Ballast Water Management Convention (BWM), and International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS).

In order to achieve all these goals for sustainability there have to be changes in the industries. To be implemented, financing is needed. Between 2013-2019 green bonds have shown an increase year by year, with 2019 being the year with the top interest with more than 250 billion dollars. When it comes to green loans, these have shown an interest in 2018 and 2019 proving that they have already being introduced in the markets. Sustainability shows an increase of interest as the years pass. For this reason, there has been at the same time a necessity for financing towards these investments. It is visible that sustainability bonds showed an interest in 2014, sustainability linked loans appeared in 2017 and in 2019 sustainability-linked bonds were introduced to the markets. Global Bonds and Loans for Sustainability in period of 2013-2019 (Source: BloombergNEF, Bloomberg LP)<sup>9</sup>.

In conclusion, a green shipping industry is a one-way street and all parts have to adopt new changes, regulations and conventions. To a global extent, people, organizations and governmental organizations attribute to a global effort for sustainability. The Shipping industry is already a part of this. In order to comply with new standards, there must be help from private entities and be given interest and attention by the stakeholders.

*Stamatia Agallou  
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# Maritime Technology - Trends that will Shape the Industry in the Current Decade

ARTICLE

In the dawn of a new decade, technology is reaching new frontiers. New trends are emerging which provide far more than necessary. Progress in many different fields of ship design and operation will guide how the industry approaches new challenges and opportunities. Here are seven trends that will shape the industry in the current decade.

## Advanced Materials

Drivers of advanced materials include:

### Protection of People, Assets, and the Environment

- Higher structural and fire protection performance to safeguard people and assets
- Improved ship stability by lowering the centre of gravity
- Ergonomics and comfort
- Sustainable sourcing
- Design for end-of-life



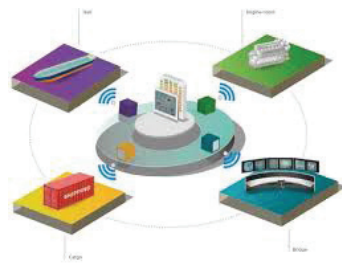
### Energy Consumption

- Reduce lightweight
- Reduce energy consumption of heating, ventilating, and air conditioning (HVAC) system
- Offer a surface that improves hydrodynamic efficiency

### Improve Operational and Maintenance Efficiency

- Higher cargo handling capacity
- Reduced maintenance costs

Metals remain the dominant force when choosing material for ship structure, but there is a trend of advanced materials replacing steel in a number of applications. And that is for a good reason. Materials can now be processed in micro/nano - scale, thus combining the best parts of different types of matter. Through this precipitation process we can produce lighter, stronger, tougher and more corrosive resistant materials, improving future ship's performance in several aspects.

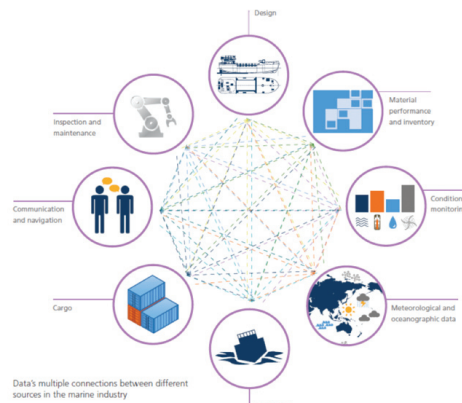


## Sensors

Sensor technology is evolving fast and soon there will be no need to visit remote locations to collect samples for analysis, inspect and upload data. This is based in two pillars, micro/nano mechanical sensors and wireless sensor technology. Data will be collected and transmitted in real time, through a network of remote sensors connected to a central unit for data collection and processing. Equipment on board will be able to monitor itself and possibly alert operators if things are abnormal or maintenance is required. The shipping company will be able to follow an early warning strategy, so that operators are alerted quite early about potential component failure and act accordingly. This creates a margin for optimization of operation and maintenance. The equipment's life cycle period will improve, which will impact CAPEX and it will be possible to keep track of any asset during its life cycle. The above will improve financial figures notably.

## Big Data & Analytics

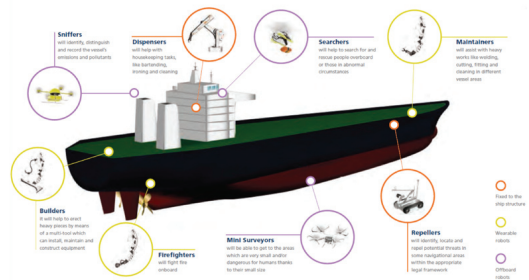
Think about going from a decision tree based approach to a more probabilistic one, when it comes to troubleshooting. The main difference between traditional data analysis and big data analytics is that in traditional data analysis, a person is required to decide what questions to ask to backtrack a certain problem. Big data analytics, on the other hand, is about using computers to identify correlation between data and implement dynamic learning to ap-



ply algorithms to dataset automatically. This will lead to intuitive interface between human and machine leading to a confidence ranked response. IT will retrieve, store and process data in real time. That's why sensors and communications advancement is critical to push through to the next level of ship monitoring and troubleshooting.

## Robotics

While fully autonomous robots sound quite unrealistic for the time being, remote control bots are already a thing and it is about to become quite popular in the years to come. We can categorize robots that will be put to use by 2030 into 3 major categories: Learning Bots, Practical Bots (that will be able to handle assets) and Mini Robots (useful for inspections in harsh and dangerous environments). Certain



types of exo- skeletons will also be available to assist crew members in completing tasks that require a lot of force or micro adjustments. Below there are robot names and their capabilities according to Global Marine Technology Trends 2030.

## Communications

Nowadays communication systems include Very High Frequency installations (VHF), use of satellites and WiFi as major means for communication. The ever increasing volume of data, though, will create a demand for more efficient data transfer and technology is already here to deliver. We are one step away from 5G network and WiFi networks keep evolving to offer more data transfer capacity at a higher speed. Next gen satellites will achieve better accuracy regarding time references, high throughput and high frequency re-uses. Another trend will be, using a higher frequency band, like terahertz, which will allow transferring multiple signals at higher speed. Lastly, new countries are about to enter the space market by 2030 leading to affordable satellite services. Co-operability between different hosts will lead to more satellites in range and

thus provide more usable frequencies and reliability.

## Shipbuilding

High levels of automation, high-fidelity design software integration, better human-computer interfaces and morphing structures are only a part of what is to come in shipbuilding. Augmented reality will also have a part in construction complexity and a variety of inspection tasks. The most promising feature though, is the introduction of Additive Manufacturing to the shipbuilding process. "Additive Manufacturing", also known as 3D printing, is a method of creating structures or parts adding materials layer by layer. This technology provides design freedom and the ability to manufacture objects with complex geometry which would, otherwise, be too expensive to consider. It will also have a fair environmental impact as it will produce way too less waste than the traditional subtractive manufacturing alternative. 3D printing offers a way to create adaptive hull forms which can better tackle changing loading conditions and speed profiles and a ballast free design to stop transferring marine invasive species across different waters.

## Propulsion and Powering

Environmental and commercial challenges are pushing for changes in power production of ships. This change, mostly, revolves around new engines, different types of fuel, propulsion energy saving devices, hybrid power generation and emissions reduction. For the time being, the use of MGO and low Sulphur HFO are a norm while some start to adopt LNG as an alternative. Main engine re-rating, advanced tuning and electronic control are also standard procedures. But the new era is full of alternatives. Diesel-Electric and hybrid models are becoming quite attractive as new propulsion means while LNG, methanol, Bio-Diesel, fuel cells and even nuclear energy are all very promising energy sources. The tools are here and plenty of what is remotely applied in shipping, is considered mainstream in automotive and aerospace. Containerships will become smarter, greener and more flexible, taking advantage of new technologies to drastically improve operational efficiency, decision making, maintenance and safety.

Ares Mitsis  
Technical Department Trainee

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# Galaxidi: a Piece of Greek Maritime History

ARTICLE

Merely a 3 hour car drive from the capital city of Athens, the little Galaxidi is located very close to Delphi -the center of the world according to ancient Greeks- and with the mountain and ski resort of Parnassos standing impressively above.



Galaxidi, nowadays, attracts mainly visitors of Parnassos during winter but also Athenians showing their preference during weekends and holidays as a close getaway from the noisy city. Like an ornament popping up in the Corinthian gulf, Galaxidi welcomes its guests and unfolds the pages of its maritime history going back to the 18th and 19th century when the town lived a prosperous era.

It was during that period Galaxidi flourished having one of the largest sailing fleets at the time among other maritime communities in the geographical area of Greece. In the tough years of the Revolution Galaxidi participated in the national battle for freedom from the Ottomans who fired upon its fleet. Very soon though the people of Galaxidi evolved to great shipbuilders becoming shipowners and captains of their own sailing ships.

A walk down the narrow cobblestone streets will reveal numerous stone mansions, a legacy from the past, that have been restored and some of them are serving as hotels these days. One will notice though that all the houses are well preserved showing beauty in their simplicity. The south harbor is full of cafes, bars

and fish restaurants offering the visitors an opportunity to enjoy the wonderful landscape at the same time.



Church of Agia Paraskevi

The church of Agios Nikolaos (1902) is among the top attractions of the town where one will admire the magnificent wood-curved baroque iconostasis. In a short distance in the much older church of Agia Paraskevi there is a solar calendar made by a captain of that time. Every afternoon at 12, a ray of light enters the temple through an opening in the roof and falls on the corresponding calendar dot of the zodiac sign-sunflower.

Another attraction worth visiting is the Nautical Historical Museum where one will explore a notable collection of documents and objects from the blooming era of shipbuilding: log-books, navigational tools, lots of paintings and miniature models, and some splendid carved wooden figureheads from the 19th century.

## Ships' Figureheads



A figurehead is a wood-carved and painted decorative representation found at the bow of a ship made by carpenters. It was very popular between the 16th and 20th centuries among the European fleets and soon it was spread also among the Greek shipping fleet that began to develop in the 1700s. The figurehead marked the identity of the ship and its Captain and its importance to the fleet. Its roots though can be found back to the ancient times when Greeks, Phoenicians or Egyptians had eyes painted on the either side of the bow or used horned animals for the pro-



tection of the ship and crew or using this way to express various symbols. In all cases and also in the later years these figureheads represented a ship's soul, the belief that the ship was "alive".

In the Nautical Museum of Galaxidi there are four figureheads on display which are believed to be works of western workshops. One of the female figureheads holds the horn of Amalthea, a symbol of abundance, and wears an elaborate dress with accentuated folds that blows in the wind, a great sample of carpenter's art.

However, the predominance of the iron steamships in the early 1900s meant the end of these marvelous wooden sculptures. This transition meant also the decline of ship-building activity in Galaxidi where some of the best wooden ships had been built in the previous century. The local maritime community may not have continued to play a leading role in ship ownership or mutual insurance as before, nevertheless Galaxidi never lost its great bond with the sea and the seafaring profession, continuing to promote good seamanship to this day.



Vassiliki Giannakou  
SQE Coordinator

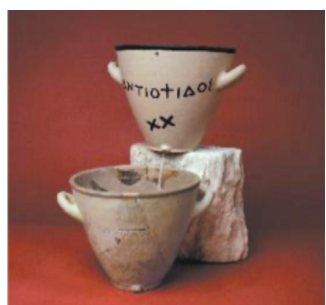
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# The Freattis Court

ARTICLE

The power of the sea and its importance to the human kind is greatly known through history. The ancient inhabitants of Earth quickly realized that in order to survive they had to find new lands to inhabit or to trade goods. This generated the need to dominate the sea roads and in short this resulted in armed conflicts between the strongest ancient cities. Greek cities were among the famous ones as the sea trade was the main source of income for them.



Clepsydrae used in ancient courts indicating the time someone had to speak during a trial.

But little is known about the role of the sea in the judicial system of ancient Greece, particularly that of Athens during the «Golden era» of Pericles. Apart from the known ancient courts such as

the supreme court of Heliaia and the Athenian Ekklesia (assembly), there were also courts which handled homicide cases. These courts were the Areopagus sited in the Hill of Ares, near the Acropolis, the Palladion, the Delphinion, the Prythaneion and the court of Freattis.

The latter, which was sited in Piraeus near the sea, was reserved for cases of intentional murder committed by those who were already in exile for having committed unintentional homicide and hadn't been granted the forgiveness of the victim's relatives. It consisted of fifty-one elder members - jurors and one lord-king who had the supervision of the trial. These fifty-one members were appointed after elections and served life terms. The trial was taking place both at sea and ashore. As a matter of fact, the defendant wasn't allowed to step his foot ashore as he was considered to be filthy due to his previous action, so he had to give his confession standing on a ship at sea while the judges were ashore. If the defendant was found guilty, he was sentenced to death

but if not he was sent back to exile.

Although scientists might disagree about the location of the subject court, we do know a famous case which took place in Freattis Court. That was the case of Teukros, one of the warriors in the Trojan war, son of the King of Salamina, Telamon. According to Pausanias, Teukros was accused of his brother, Aias, death. According to history, Aias being of unsound mind killed himself with his sword. So, Telamon thought that Teukros didn't do anything to help his brother, not even cared about his proper burial, hence he accused him of unintentional murder. The court decided to send him in exile and never step foot in Salamina again. He escaped to Cyprus where he founded the town of Salamina of Cyprus.



Teukros

Efthimia Barliakou  
Operations Department Trainee



# The Educational Program “ADOPT-A-SHIP”

DANAOS NEWS

“ADOPT-A-SHIP” is an educational program currently undertaken by the schools of Primary Education Piraeus and the Athens College, with the approval of the Ministry of Education and under the auspices of the Ministry of Merchant Shipping.

Under this education program, the students have direct contact with the crew to discover and be informed about issues related to Shipping, its role in human life and its contribution to the economic, historical and cultural development of the country. They are also informed about the profession of the Seafarer and other professions related to Shipping.

Through this program the students learn about the ship categories and their activities. Moreover, they understand the special importance of Shipping in the economy and learn about new countries, ports, seas and oceans. In general, they become more familiar with the seafaring profession and this might affect their possible professional orientation in Shipping. Furthermore, there are educational benefits of the program such as the knowledge of the History of Greek Shipping, students enhance their written communication skills in English and their teamwork spirit. Finally, they develop their social skills and public speaking by communicating with the world outside the classroom.

These Danaos vessels have been “adopted” by various schools in Greece:

- M/V EXPRESS ATHENS “adopted” by the sixth-grade class of the primary school in Ermoupoli, Siros.
- M/V EXPRESS ROME “adopted” by the third-grade class of the 34th primary school in Thessaloniki.



- M/V HYUNDAI SPEED “adopted” by the sixth-grade class of the 2nd experimental primary school in Ioannina.
- M/V AMERICA “adopted” by the first-grade class of the Geitonas middle school.

- M/V EXPRESS BERLIN “adopted” by the fourth-grade class of the 34th primary school in Thessaloniki.

Finally, please find below an outgoing message of the Captain of M/V Express Berlin, Captain Stylianos Piperidis, to the students of the 34th primary school in Thessaloniki:

*“Dear Teachers and Students,*

*I am contacting you with this first message, in order to give you a brief information about my ship and its crew, as well as about the voyage we are making now.*

*The ship was built in a South Korean shipyard in 2011. It has a total length of 349 meters and a width of 46 meters.*

*A ship is a small community consisting of several seafarers, in various ranks. It currently consists of twenty-six (26) seafarers, who are of different nationalities. Seven (7) Greeks, sixteen (16) Ukrainians and three (3) Tanzanians.*

*The ship belongs to the ship-owning company DANAOS SHIPPING. It is a container ship and currently travels from ports in Japan, China and South Korea to Los Angeles. Our circular journey lasts thirty-five (35) days. We are currently waiting to enter the port of Los Angeles.*

*Greetings,*

*The Captain, Stylianos PIPERIDIS “*

*Konstantinos Grammozis  
Assistant Crewing Supervisor*

References: [www.naftemporiki.gr](http://www.naftemporiki.gr)

## Running with ELEPAP at the Athens Authentic Marathon

The 38th Athens Authentic Marathon returned after two years of absence, due to the Coronavirus pandemic, with thousands of participants from 83 countries. Congratulations to everyone who participated to such a great social and sporting event that unites the legend with history, highlighting the power of the human will and soul!

Thumbs up to Danaos runners who ran the 5km, 10km and 42km aiming to support and highlight the social contribution of ELEPAP!

*Tania Mermiga  
Media & CSR Manager*



## Cleaning Up the Beach of Freattyda

About 12 million tons of plastics flow into the ocean every year and we are proud to be part of the solution to this global problem!!

Thumbs up to Danaos employees and their families who boosted the rainy Sunday blues mood by participating in the International Coastal Cleanup Campaign at Freattyda beach in Piraeus.

Special thanks goes to HELMEPA for coordinating the oldest and most extensive public awareness campaign on marine litter and of course the Danaos Cleanup Team for always being there!

*Tania Mermigka  
Media & CSR Manager*





# Go-Kart History

In today's world, aside for a recreational tool for adults, go-kart racing is a stepping stone for kid racers targeting higher-tier competitions the likes of Formula 4 and beyond. Over the years, a lot of names now famous in Formula 1 started their careers as drivers in go-karting: Nico Rosberg, Ayrton Senna, Lewis Hamilton or Michael Schumacher.

All the names above would have remained unheard of hadn't it been for veteran hot rodder and race car builder Art Ingels. But let's read how the first kart was created.

## The First Kart

The first-ever go-kart was constructed by Ingels in 1956, with the help of Lou Borelli. They used for the build a West Bend 2-cycle 750 engine taken from a lawn mower, slapped it on top of a simple tubular chassis and adorned the entire machine with semi-pneumatic tires. Officially, this go-kart has no name but is known in the world of kart enthusiasts as Kart No. 1, or The West Bend. The engine developed only 2 horsepower, delivered to the left rear wheel through a countershaft constructed of bicycle chains, sprockets, and a centrifugal clutch.

Braking was achieved by using a pulling a lever fitted on the right-hand side. The lever pivoted a plate which pressed a braking pad against a disc welded to the right rear rim.

This first kart was rarely used in racing, but when it drove Ingels himself to and fro, it managed to attract a lot of interest. The first public appearance of the model took place the same year, at the Pomona sports car races.

Three Californians saw the potential of the machine and decided to manufacture karts on a large scale.



The Rose Bowl parking lot in 1957

## Birth of the Go-Kart

One year after Ingels innovated the go-kart, Bill Rowles, Duffy Livingstone, and Roy Desbrow established the Go-Kart Manufacturing Company. The three set out to create their own karts, using a seemingly endless supply of inexpensive engines scavenged from a bankrupt West Bend lawn mower business.

The three men decided to sell the karts as kits for \$129. To better describe their product, it has been named "Go-Kart".

As the success of Go-Kart Manufacturing grew, more and more companies began doing what they did. The inventor of the kart, Art Ingels, set up his own kart building business together with the man who helped him construct the first kart, giving birth to the Ingels-Borelli Kart company. The two, together with other such companies, began to coalesce in the American Kart Manufacturer's Association.



Art Ingels (left) and Lou Borelli with the very first go-kart

## Caretta

As said, Art Ingels and Lou Borelli set up their own kart manufacturing company, the Ingels & Borelli Kart Company. This would become the world's first producer of completed karts, which were sold under the name Caretta.

The Caretta kart, hand-built, has become the forefather of the current enduro karts used in competitions.

## Birth of IKF

As soon as Livingstone saw Ingels' creation

and built his own, he began meeting with the inventor of the original machine at the Rose Bowl parking lot, in Pasadena. There they would hold various types of races and competitions.

As more and more people were drawn to this new segment of racing, an increasing variety of karts started to pop up. Those who wanted to race but had no building skills began demanding to purchase go-karts, fueling the success of the two companies.

As a result of an increasing number of kart racers, some guidelines had to be created. The rules and regulations governing go-kart racing were put together by Pasadena attorney Don Broberick. He, along with twelve other enthusiasts, set up the Go Kart Club of America, which in time would become the International Karting Federation (IKF).

## Going International

Despite all these little vital steps, this new sport was not that known outside California. Luckily for karting, Spencer Murray, a writer from Rod & Custom magazine, decided to support karting by publishing a special magazine in 1958. The sports became an instant hit and significant competitions were on the way.

The first Grand National event took place in 1959 at the Azusa track in California. Starting with 1962, the sport has become regulated by FIA and the annual Karting World Championship was set up.

Currently, there are a considerable number of go-kart competitions organized across the globe. Racers come together in clubs or associations. For them to be able to compete, they require a license as well as proper protection equipment, a taste of the requirements of more prestigious racing series.

*Georgia Pastra  
HR Officer*

References:

<https://www.autoevolution.com/news/a-short-history-of-go-kart-racing-125891.html>

## Danaos Goes Karting

Danaos employees as other racers who love go-kart competitions met at Kartland on Sunday 13th of June to try their skills behind the wheel!

The competition was hard and the karts were running at high speed along the racetrack! There was "no mercy" between the competitors who tried by all means to reach the finish line first! But there was only one winner who raised the cup and received our congratulations and his name is Nikolaos Fountos!!!

*Georgia Pastra  
HR Officer*





# Danaos goes to the Theatre!

DANAOS EVENTS



What a relief & joy for all Danaos employees to meet again after two years out of the office for another theater evening!

“The Third Wedding”, the masterpiece of Kostas Tachtsis, returned to the Pallas Theater after having been presented only for 13 sold-out performances in 2020 directed by Konstantinos Markoulakis and with Maria Kavogianni and Maria Kitsou in the iconic roles of Ekavi and Nina, 60 years after the release of the first edition of the famous novel by K. Tachtsis.

The great production highlights the narrative virtues and poetry of the novel, respecting the author’s intention for a story that, like life, opens and closes like a circle. A twenty-member cast of important actors surrounded by the original music of Minos Matsas, bring on stage the sounds and images of an entire era.

Tachtsis “The Third Wedding” (“Το Τρίτο Στεφάνι”), one of the most beloved novels of the Greek public throughout time, is a testimony of memory through personal stories of heroes is the whole modern history of Greece during the first half of 20th century.

Ekavi and Nina fall in love, argue, talk non-stop, and are silent only in front of what surpasses them and always carry the beautiful and strange burden of the homeland that gave birth to them. Not with a didactic mood, but with a rare humor that highlights all those that are worth fighting for in life.

“Life is a turbine. Happiness is to love the turbine”, Maria Kitsou will say in the finale of the



play that focuses on the lives of two women in the vortex of time – around the two main heroines, Ekavi and Nina, stubborn and fighters of life, protagonists of two paths sometimes parallel and sometimes intersecting, Markoulakis sets up a colorful carousel, where alike the heroines, finally an entire country, are stubborn, fighting and “winning”, despite the injuries and losses.

We all hope to meet again soon for another enjoyable evening!!!

*Katerina A. Vassilopoulou  
Training Officer*

## Tree Planting at Acharnes

DANAOS NEWS



Did you know that a tree can absorb on average 22 kg of CO<sub>2</sub> per year and create 117 kg of oxygen? We already planted our first 1000 trees!!

The Danaos Team and their families joined forces with the non-profit Environmental Organization We4All in a tree planting initiative at Acharnes. The principles of social responsibility are an inextricable part of our culture and making a positive impact on the environment is a priority.

This was our first afforestation as a Danaos Family and it was such a special and rewarding experience! Here’s to many more!

*Tania Mermiga  
Media & CSR Manager*



Issues you may want to report through the Ethics & Compliance Reporting (Whistleblowing) link:

- Fraud/theft
- Waste and/or misuse of Company’s resources
- Conflict of interest

- Financial and/or operational policies violations
- Non-compliance to applicable laws and regulations
- Any unethical business conduct

**Key characteristics of the Whistleblowing link:**

- Online reporting at Whistleblowing link
- Discrete and confidential treatment of concerns (to the extent possible under applicable laws).
- Employees may choose anonymity or provide their names and contact information.

Any employee who brings an issue to the Company’s attention, through either the Whistleblowing link or the Internal Auditor & Compliance Officer, should be aware that Company’s policy prohibits retaliation, discrimination or other adverse action, including dismissal, to be taken against an employee who -in good faith- raises or helps to resolve an ethical concern.

*Frequently Asked Questions*

**Q: What happens when I make an online report to the Whistleblowing link?**

A: We review all Whistleblowing submissions and assess each one before deciding how to proceed. Submissions can be made anonymously. However, if you opt to tell us your name and how to reach you, it can help us follow up on the complaint, and inform you about the conclusions.

**Q: Where can I find more information?**

A: For more information please visit: <https://www.danaos.com/investors/corporate-governance/corporate-governance-guidelines/default.aspx>

**Q: Who can report issues/concerns to the Whistleblowing link?**

A: Anyone can report fraud, conflict of interest, financial/operational policy violations, unethical business conduct, etc., to the Whistleblowing link.

**Q: How do I start a Whistleblowing report?**

A: Report a concern using the Whistleblowing link. Alternatively, you may contact either by e-mail ([internal.audit@danaos.com](mailto:internal.audit@danaos.com)) or by phone (+302104196483) the Internal Auditor & Compliance Officer to raise any issue, discuss any concern or seek for any advice.

## We need you!

Please feel free to send us new ideas as well as articles and photos you might find interesting.

Mail to: [hr@danaos.com](mailto:hr@danaos.com), with subject: “For the Danship News.”

With our Warmest Wishes for  
Good Health and Happiness in the New Year



# Season's Greetings



We, at Danaos, for yet another year, choose to reinforce the ELEPAP Foundation's efforts to protect and rehabilitate disabled children. We pray you follow the same path.