

Capital Link 11th Annual Operational Excellence in Shipping Forum

"Best Industry Practices - A Competitive Advantage"
Digital Conference

Tuesday & Wednesday, June 8 & 9, 2021

11:00am – 4:30pm London Time

Complimentary Registration

PRESS RELEASE

11th Annual Capital Link Operational Excellence in Shipping Forum

Best Industry Practices – A Competitive Advantage

Digital Conference

Held with great success

With the participation of Industry Leaders from around the World

Tuesday & Wednesday, June 8 & 9, 2021

2 Days – 17 Sessions – 80 Global Industry Speakers

Video Replays <http://forums.capitallink.com/opexcellence/2021/>

NEW YORK, Thursday, June 17, 2021

Capital Link's **11th Annual Operational Excellence in Shipping Forum** took place with great success and participation on **Tuesday & Wednesday, June 8 & 9, 2021** from 11:00am – 4:30pm London time as a digital conference.

The event took place over the course of two days, with 17 virtual sessions, and 80 speakers from the global shipping industry participating on the discussion panels and presentations.

The forum focused on the topic of Operational Excellence, Best Industry Practices and Sustainability and the main issues addressed were the challenges within the industry and the industry's preparedness for the road ahead, the transformation of shipping during Covid-19 era, which can be used as an asset for optimizing fleet management. Furthermore, topics that were discussed were, the impact of technology on efficiency and profitability, crewing needs & the crewing crisis, the human factor on board ships and the welfare of seafarers. Also, the importance of proper cyber security management and the implications of lack of same, as well as decarbonization and how fleet operations can be adapted to meet regulatory requirements.

The Forum was honored by the participation of **Mr. Kitack Lim**, Secretary General - **International Maritime Organization (IMO)**, who delivered **Keynote Remarks** on Tuesday, June 8, 2021.

The **Introductory Remarks** concerning the Crewing Crisis issue - a global issue involving international organizations, national jurisdictions, charterers, shipowners and more, especially in view of the recent crisis in India, were delivered by the **Deputy Shipping Minister of the Republic of Cyprus, Mr. Vassilios Demetriades**.

Dr Grahaeme Henderson OBE, Senior Vice President, Shipping & Maritime - **Shell International Trading and Shipping Company Limited**, delivered the **Keynote Remarks** regarding an equally very important issue: Safety of seafarers, vessels, cargoes and the environment working together towards a zero-incident future. **Finally the heads of the major classification societies**, gave their insight as to their pivotal role in the industry, the guidance they provide and the need for various initiatives to help the shipping industry meet the new challenges from environmental compliance, ship safety and security, technological innovation, operational efficiency, human resources management and more.

The Forum was held digitally, opening it to a global audience and making this approach highly relevant and effective, and featured a series of LIVE interactive panel discussions.

AGENDA TOPICS

DAY ONE – TUESDAY, JUNE 8, 2021

WELCOME REMARKS: Mr. Nicolas Bornozis, President - Capital Link

Mr. Nicolas Bornozis, President - **Capital Link**, welcomed sponsors, participants and panelists to the “11th Annual Capital Link Operational Excellence in Shipping Forum” and continued with stating: “As the title of the Forum indicates, it focuses on Best Industry Practices across all areas of ship operations and how Best Industry Practices are a competitive advantage. We have a great agenda with industry leaders on the various panels and presentations, and during two days, we are going to have the opportunity to address and discuss in depth a number of critical issues the industry is facing today. I would like to thank our sponsors, supporting organizations and media partners for their contribution in making this event a great success as well as Capital Link team for putting it together.

We are honored to start again our conference this year, with Mr. Kitack Lim, the Secretary General of International Maritime Organization (IMO), who is going to give us his insight and also deliver the Opening Remarks to the Forum.

KEYNOTE REMARKS: Mr. Kitack Lim, Secretary General - International Maritime Organization (IMO)

Mr. Kitack Lim, Secretary-General of the **International Maritime Organization (IMO)** stated in his keynote address that following the immense socio-economic impact of the pandemic on the shipping industry, it was time to pave the way for a re-imagined future of the maritime industry. He highlighted that shipping had an opportunity to drive a green recovery and ensure a sustainable maritime future. To keep pace with the demands of the global economy and the expectations for sustainable growth, the maritime world needed to be in the forefront of transformational change, with the key to shipping’s transformation being increased digitalization as well as the decarbonization of shipping.

The benefits of digitalization and automation needed to be harnessed to full advantage – while ensuring user needs were taken into account. The wider endorsement of the maritime single window concept, the implementation of e-navigation as well as port call optimization were needed to strengthen efficiencies of maritime trade to benefit the supply chain. The maritime industry had all these opportunities, and how they were developed would shape its future.

Confronting climate change and navigating the course of decarbonization was also going to transform shipping. IMO Member States, in 2018, adopted the initial GHG strategy with a clear goal to phase out GHG emissions from shipping. The need to decarbonize would impact ship design, operation and future fuels. Significant investment in R&D, and infrastructure would be needed to achieve this goal. Therefore, IMO was collaborating with a range of partners to further promote and accelerate research and development into low- and zero-carbon marine fuels. Collaborative actions to strengthen partnerships, build capacity and accelerate innovation were key to making sure no country was left behind when it comes to shipping’s decarbonized future.

Mr. Lim concluded that everyone had a part to play to push innovative thinking to develop and implement solutions to combat climate change and to push forward digitalization. Cooperation and collaboration of all maritime stakeholder would be needed to develop innovative solutions for the green and sustainable maritime sector of the future.

ADDRESSING INDUSTRY CHALLENGES – INDUSTRY PREPAREDNESS FOR THE ROAD AHEAD

The main industry associations work independently and together providing guidance and support to the shipping industry and mapping its response to the geopolitical, regulatory & market developments that affect shipping today. The panel highlighted what these organizations are working on and how they address the changing needs of the industry.

Moderator: Mr. Knut Ørbeck-Nilssen, CEO – DNV Maritime

Panelists:

- **Ms. Sabrina Chao**, President – **BIMCO**
- **Mr. Dimitris Fafalios**, President – **INTERCARGO**; President - **Fafalios Shipping**
- **Mr. Guy Platten**, Secretary General – **International Chamber of Shipping (ICS)**
- **Mr. Paolo d'Amico**, Chairman – **INTERTANKO**; Executive Chairman & CEO - **d'Amico International Shipping**
- **Mr. Mark O'Neil**, President – **INTERMANAGER**; President & CEO – **Columbia Shipmanagement**
- **Mr. John Butler**, CEO – **World Shipping Council**

Mr. Knut Ørbeck-Nilssen, CEO – DNV Maritime, said: “Shipping’s commitment to the vision of greener and more efficient operations is close to tipping point. The pressure to decarbonize and digitalize is now not only a matter of regulatory compliance. It is now too an imperative for charterers, cargo owners, financiers and members of the public – not to mention regional and national lawmakers.

“The whole value chain of shipping is sitting up, paying attention, and demanding progress towards the greenhouse gas goals set by the IMO, whose 2050 deadline is increasingly the subject of challenge and debate.

“Several industry and geopolitical giants are lobbying for an accelerated transition. Adopting new fuels and new technologies is the only route to 2050 – their combined benefit is irrefutable. And yet new fuels and technologies are creating a new risk landscape, adding to an already complex operating environment. Remember: progress without safety is no progress at all.

“The gulf between the current safety risk picture and our ambitions towards increased digitalization and decarbonization is creating a looming safety gap. The longer we wait to identify and address these safety concerns, the more the safety gap will grow – the more we put in jeopardy our assets, our crew, our environment and our progress towards the smarter and greener future we all desire.

“Take for example carbon neutral fuels like Hydrogen and Ammonia. While they occupy a great deal of headline space, big questions still linger about their viability - questions around safe storage, fit-for-purpose engines, a workforce trained for their safe handling, and the absence of a regulatory framework.

“Increased digitalization, too, offers huge benefits – we know that innovative technologies and valuable data drive enhanced efficiency, safety and cost controls. But here too questions endure around a lack of standardization, a growing vulnerability to cyber-attacks and systems complexity.

“We all understand that decarbonization and technological progress must move with pace and determination. So, from a safety perspective, we simply cannot afford serious incidents which threaten to stymie industry advancement.

“What we need now are fewer warm words and unrealistic declarations, and more collaborative action towards innovation, piloting, and testing of these new fuels and technologies on which the industry is hinging its hopes for the future.”

On how ships would comply with IMO’s MEPC76’s adoption later this month, **Ms. Sabrina Chao**, President – **BIMCO**, stated that the main challenge was to establish HOW a ship shall comply, referring to by power

limitation of the main engine, by adding certain efficiency improving features, by de-rating the main engine etc. Classification societies together with technical departments of ship owners/managers would have to work closely and quickly to meet the deadlines.

On the biggest safety risks as the industry adjusting towards the IMO 2030 target, Ms Chao responded that the industry was well underway to meet and exceed the 2030 target by a variety of efficiency improving changes, namely with the adoption of EEXI and CII. Whilst EEXI would have an impact through speed/power limitation, Ms Chao remained concerned with CII, as the incentive structure for the chosen metric to calculate CII – the AER – was ambiguous. One could improve CII by lowering emissions, one could also improve CII by increasing emission. CII could conflict with commercial contractual obligations and charterers may not find it beneficial to allow ships under their control improve their CII as required by regulation.

On the question of pandemic and what industry could do more of, Ms Chao gave the example that BIMCO recently launched “Seafarers deserve support” to highlight the crucial role that seafarers play in society and calling on governments to step up. Ms Chao encouraged all attendants to share this short video (which can be found on YouTube) as widely as possible to reach governments and beyond.

On decarbonisation target, Ms Chao opined that the advent of the solutions to build and operate decarbonised ships would not be driven by more aggressive targets, but by solutions and actual change in the industry. Because shipping industry is committed to decarbonise, we are already in solution mode!

Mr. Dimitris Fafalios, President – **INTERCARGO**; President - **Fafalios Shipping**, stated: “The shipping industry’s path to a low or zero carbon future relies on a deep understanding of the industry by it’s regulators and the modus operandi of its various sectors.

Good regulation through IMO should prioritise effective Greenhouse Gas (GHG) reduction policies and at the same time and with equal priority, the safety of vessels and seafarers when applying these policies.

All stakeholders involved, shipowners, charterers, shipbuilders, engine designers, ports, terminals and fuel suppliers should be regulated in a way that GHG reduction can be global, coordinated, smooth and effective. Future proofing ships in the dry bulk tramp trade is extremely challenging as necessary fuels and technologies are in their infancy. Long-term chartered ships will need different solutions to spot market bulkers. The latter are trading worldwide with no fixed itinerary.

The necessity for a research and development fund through the IMO in the short-term may have to be supplemented by a medium term market based measure MBM, such as an equitable fuel levy per tonne of fuel or per tonne of CO₂.

With over 12,000 vessels in the global dry bulk fleet this is the largest single sector both in numbers of vessels and total deadweight. Dry bulk carriers are also the most GHG efficient method of transporting vital, large cargoes over long distances.

The dry bulk fleet wishes to decarbonize as quickly as possible but cannot do so alone.

Intercargo represents it’s member bulk carrier operators comprising about 140 companies from 30 countries with about 2,300 vessels. Representing over 19% basis numbers and about 24% basis dwt of the global dry bulk fleet, Intercargo attends IMO and other regulatory bodies to help achieve practical and effective regulation on GHG reduction and safety.”

Mr. John Butler, CEO – **World Shipping Council Council**, stated: “We are at a pivotal time in terms of being able to craft an effective and efficient path towards decarbonisation for the shipping industry. Industry and regulators all have a part to play.

The industry is committed to decarbonisation and ready to do our part. Today shipping is still in the innovation phase, where measures are needed to accelerate the development of zero-carbon technologies for deep-sea vessels. The industry-financed R&D fund now proposed in the IMO will help make these options available sooner, in an equitable way. And the sooner we do that essential research and development work, the more

effective any carbon pricing tool will be in driving the adoption of those technologies. We need both the R&D fund and carbon pricing, and the order is important.

The international maritime transportation system drives the world economy. World trade and the world's economies cannot afford a chaotic decarbonisation of shipping. Nor can time be lost in effectively tackling the challenge. We therefore invite all governments to show engagement and climate leadership on the international stage, through support for the IMRB at the UN IMO. The shipping Industry is willing to take the cost and do the work to meet the climate challenge, but we can only move forward with political support."

OPTIMIZING FLEET MANAGEMENT IN THE POST COVID-19 ERA – Lessons Learned & Experiences Gained

Covid-19 accelerated the pace of transformation as the industry fulfilled its role of keeping the global supply chain uninterrupted, linking producers and consumers across the globe. Several of the lessons and experiences learned while combating the crisis can now continue to be implemented optimizing fleet management.

Moderator: Mr. Michalis Pantazopoulos, Managing Director - LISCR (Hellas) S.A. – The Liberian Registry
Panelists:

- **Mr. Gerry Docherty**, Director, Fleet Management - **Ardmore Shipping Services**
- **Mr. Dimitris Vastarouchas**, Deputy Chief Operating Officer & Technical Director – **Danaos Corporation**
- **Mr. Claus Usen Jensen**, Director of Technical Management - **Eagle Ship Management**
- **Mr. Stamatis Bourboulis**, General Manager – **Euronav Ship Management (Hellas)**
- **Mr. Guido Olislagers**, Managing Director – **EXMAR Shipmanagement**
- **Mr. George Saroglou**, Chief Operating Officer – **Tsakos Energy Navigation Ltd.**

Mr. Michalis Pantazopoulos, Managing Director - **LISCR (Hellas) S.A. – The Liberian Registry**, stated: "Whilst the shipping industry quickly adapted, adjusted and continued the supply chain and trade worldwide when the pandemic appeared, the challenges due to COVID-19 still exist today. The experience of all shipping market sector (containers, bulk carriers, tankers, and gas carriers) during the last year, covering the shipmanagers, the crew prolonged stay onboard, the remote communications with the ship, the interaction with other stakeholders (Flag, Class, charterers, etc.) were discussed together with the existing challenges of today. New ways of communications, distance training, savings due to elimination of travelling were some of the positive aspects that were established and would be followed as ongoing practices now and in the future, whilst the issues as crew changes and repatriation, the lack of worldwide designation & enforcement of seafarers as "key workers", and vessel maintenance and shipyard attendance are existing issues that remain unresolved."

Mr. Dimitris Vastarouchas, Deputy Chief Operating Officer & Technical Director – **Danaos Corporation**, a company operating containerships, stated that Covid-19 affected shipping business raising a number of issues, but the company was able to keep an "eye" on ship's operation and remain alerted without having major disruptions during the crisis, owed to the investment in IoT and data analytics that initiated 7-8 years ago, allowing a 24/7 performance monitoring without any loss of critical data.

According to Mr Vastarouchas, the immediate impact of Covid-19 on travel created difficulties on physical attendance and access onboard, inspections, dry docking and major modification delays and despite the contribution of most parts to the smoothening of situation, the crew changes and physical attendance still remain at worrying levels, causing uncertainty about ship's maintenance and condition. Mr Vastarouchas highlighted that once again technology offered solutions through the use of digital media, by instructed inspections by the crew, accompanied by web meetings, media sharing covering half of the planned inspections and audits, while in similar way, the external surveys were carried out smoothly with the cooperation of 3rd parties. Moreover, Mr Vastarouchas stated that despite the people's resistance to change, the technology contributed significantly in keeping operations active and setting new culture, pushing the industry forwards with confidence and consistency.

Mr Vastarouchas said the remote work widens the horizon of people engagement and interaction, eliminating distance and time, while knowledge sharing was reinforced through webinars and online presentations enabling to keep the moral high and enhance knowledge and motivation. Moreover, the fact the company has

her own manning offices, allowed the rapid development of remote functions in crew training, augmented reality and soon, virtual reality, participation in workgroups, surveys and seminars, while offering the opportunity to reduce transportation cost and emissions by eliminating unnecessary crew travelling. Finally, Mr Vastarouchas stated that companies soon or later will be so tuned and digitalized, as to be ready to participate in various blockchains that will fine tune and improve the whole trade chain. According to Mr Vastarouchas statement, since technology and AI are here to stay, Danaos makes a strong turn to the future by proceeding in full internal functions' digitalization and enhancing both remote crew and office personnel training, creating new organizational and operational structures, communication approaches, blockchains, and joint efforts with other stakeholders to improve performance, educate people, control emissions and preserve industry's sustainability.

Mr. Stamatis Bourboulis, General Manager – **Euronav Ship Management (Hellas)**, stated that although we are optimistic after dealing with COVID 19 pandemic for over a year, the challenges are still present. However, this does not prevent us to evaluate how shipping reacted, to identify what lessons can be learned and which of them could be incorporated to the new norm in the post COVID 19 era.

As he said shipping maintained successfully its role as the main link to the global supply chain, despite the serious obstacles which were mainly related to the difficulty of the crew changes. This happened mainly thanks to the resilience demonstrated by the seafarers, who were adapted to the conditions of prolonged service on board and repatriation uncertainty being supported by the shore organization, but also the business continuity was greatly assisted by the available communication technology that filled the gap of the imposed physical isolation very efficiently.

He highlighted that due to the pandemic, an enormous spread of the technological applications was observed, creating the main platform for the business activity across shipping and beyond. This compensated the loss of the physical contact through a considerable increase of the capability for more frequent and quite effective web based live communication, irrespective of distance.

Mr. Bourboulis believes that in the post COVID 19 era, this gained experience of highly efficient remote communication will continue to be utilized, bridging the gap between the ship and the shore staff, complementing the need of physical meetings, training and surveys through remote activities which will in addition include the exchange of electronic documentation etc.

At times of serious consideration of CO2 emissions reduction, the new standards of remote connectivity, achieved as a side effect of the COVID 19 pandemic, will reduce the need of travel, opening new opportunities to persons and businesses.

SHIPPING IN THE AGE OF TECHNOLOGICAL TRANSFORMATION – PRIORITIZING AMONG SO MANY NEEDS & SO MANY OPTIONS

Technical, commercial, and corporate operations are optimized through technology with impact on efficiency and profitability. Shipping companies are called to make choices and investment decisions prioritizing among the various areas. This panel discussed how shipping companies evaluate and prioritize their investments taking into consideration regulatory requirements and market expectations and conditions.

Moderator: Mr. Pino Spadafora, Marine Commercial Senior Director - **RINA**

Panelists:

- **Mr. Salvatore d'Amico**, Fleet Director – **d'Amico Shipping Group**
- **Mr. Ernst Meyer**, COO - **Klaveness**
- **Mr. Mark Martecchini**, Managing Director – **Stolt Tankers**
- **Mr. Christopher Schröder**, Sales Director at **Wärtsilä Voyage**

Moderator, Mr. Pino Spadafora, Marine Commercial Senior Director – **RINA**, stated: “The panel focused on how maritime companies evaluate and prioritize their investments taking into consideration regulatory requirements and market expectations and conditions.

As the discussion progressed, the panelists talked about the future challenges of shipping businesses and the benefits provided by innovative technology solutions. The panel also addressed other topics of high interest to

marine stakeholders, and the debate centered on how the adoption of advanced digital technology can drive operational efficiency and optimize business processes in the industry.”

Christopher Schröder, Sales Director at **Wärtsilä Voyage**, asserted that digital transformation can only be driven by solid value proposition. He expressed that only when we can demonstrate the immediate and long-term quantifiable economic values such as reduced fuel consumption, reduced environmental impact and enhanced safety, then we will get true buy in.

Its implementation, however, requires an ongoing partnership between customer and technology provider. ‘When it is a question of how to enhance the running of a vessel or fleet, data helps us to continuously learn, improve and update – this is a journey to be taken together.’

As a big player in the market, Wärtsilä has noted that the lack of systemic digitalization and standardization is now receiving more attention from customers. ‘This is because they increasingly understand there are huge gains to be made through digital consolidation with solutions that create synergies between all stakeholders in the shipping value chain.’

‘For example, the industry is waking up to the need for common platforms that not only allow crews, fleet operators and managers to discuss operations via common datasets - these synergies can and will eventually transcend borders to include ports and hinterland logistics, creating a seamless and sustainable global chain.’ With this in mind, it is not the governmental nor regulatory bodies who will drive digital transformation claims Schröder. ‘It is increasingly about us as discerning consumers and citizens who vote for ecofriendly economies. The decarbonisation of shipping is no longer about IMO deadlines set on a future date. Mounting societal pressure to reveal detailed emissions data is tightening enforcement of regulations and putting a new light on ESG financing.’

To that end, digitalisation enables full transparency on the connection of ship operations and emissions, it enables dynamic fuel efficiency improvements and supports shipowners and operators in boosting their green credentials by ensuring their assets remain sustainable and commercially viable across their lifetimes. And herewith lies the value driver for digital transformation.

CREWING – THE CRISIS CONTINUES – IS THERE AN END IN SIGHT?

The crewing crisis is a global issue – but the implementation involves international organizations, national jurisdictions, charterers, shipowners and more. The recent crisis in India has elevated the crewing crisis to a new height. The current situation shows the urgency and importance to coordinate all stakeholders into streamlining policy making at an international level and achieving implementation across the board. Is this possible – and how can be it done so we can move from discussion to resolutions?

INTRODUCTORY REMARKS BY

Mr. Vassilios Demetriades, Deputy Shipping Minister – **Republic of Cyprus**

The International Labor Organization adopted in April 2021 a resolution endorsing the global vaccination program proposed by the Republic of Cyprus, which was the first country to submit such a proposal as part of an effort to help alleviate the global crew crisis.

PANEL DISCUSSION

Moderator: Ms. Antonia Panayides, Partner – **Reed Smith**

Panelists:

- **Capt. Bjorn Hojgaard**, Chairman - **Hong Kong Shipowners Association**, CEO - **Anglo-Eastern Univan Group**
- **Mr. Rene Piil Pedersen** – Managing Director, Head of Marine Relations – **A.P. Moller Maersk**
- **Mr. Guy Platten**, Secretary General – **International Chamber of Shipping (ICS)**
- **Mr. Stephen Cotton**, General Secretary – **International Transport Workers’ Federation (ITF)**
- **Mr. Polys Hajioannou**, CEO – **Safe Bulkers, Inc.**

Capt. Bjorn Hojgaard, Chairman - **Hong Kong Shipowners Association**, CEO - **Anglo-Eastern Univan Group**, stated: “The pandemic burning through India these past couple of months has been heartbreaking,

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leaving in its wake personal stories of tragedy and despair. Crew operations have not been spared, with many countries denying access to travellers from certain places, thus making crew changes extremely challenging again. Coupled with manning offices stretched to breaking point, also hit by infections as well as lockdowns, and it's a grim cocktail that is bound to ripple through our industry for months." The solution, he noted, is two-fold: seafarers must be given priority access to vaccines, while countries with entry restrictions need to differentiate between vaccinated and non-vaccinated travellers. "Some companies are now trying to shift the nationality of seafarers on board in response to affected supply countries, but seafarer supply is not a faucet you can simply open in one place and close in another. It takes years to develop competencies and experience." There is some light at the end of the tunnel, however, with CDC-approved clinics in the US offering vaccination to foreign seafarers, and other countries likely to follow suit. "With the uptick of vaccination in home countries and the opportunity to get vaccinated while calling on foreign ports, I estimate that 50% of seafarers on our ships will be fully vaccinated sometime in August or September," said Capt. Hojgaard of Anglo-Eastern's fleet. "That will greatly help in keeping Covid away from the fleet, and reduce the stress and anxiety of trading across the world and being exposed to workers in foreign ports. But for the crew change crisis to abate, we need vaccinated travellers to be exempted from the blanket ban we are now seeing for many crew supply countries," he emphasised. "That takes global political leadership – something the last 18 months or so have shown is sadly in short supply."

Mr. Polys Hajioannou, CEO and Chairman of the Board of **Safe Bulkers Inc., (NYSE:SB)** noted the single most important operational challenge for shipping companies continues to be the inability to conduct timely and cost efficient crew changes due to Covid pandemic. Hundreds of thousands of seafarers are still waiting to be repatriated after many months on board. Relieving crews is a humanitarian imperative. Safe Bulkers will continue to raise awareness amongst the key players mainly charterers, ship owners, governments and international regulators to share responsibility and work in tandem to address the crew crisis.

Covid is here to stay in one form or another for a few more years. Increasing crew fatigue is inevitably leading to mental health issues on board in harsh ocean environments, and hence increased risk for serious maritime accidents. As the vast majority of our workforce comes from developing nations whose access to vaccines is challenging we should focus on the supply chain to continue. The goal should be to find solutions such as the priority access to vaccination of seafarers in their home countries under the key worker status as advocated by IMO.

Let's all increase our collaboration, share costs, facilitate crew changes and address the unprecedented challenges created by the pandemic.

ADDRESSING THE SHIPPING INDUSTRY'S CREWING NEEDS NOW & BEYOND COVID-19 – Short Term Responses & Longer - Term Pursuits

Difficulties in crew changes, addressing the well-being of the crews and dealing with crew restrictions when it comes to drydocking and newbuilding deliveries are among the challenges shipping companies face today. Looking ahead, beyond the need to respond to challenges presented by the current crisis, shipping companies aim to ensure the longterm availability of seafarers, who are the backbone of the shipping industry. The panel discussed how major companies look at the global crewing landscape (including major hubs, such as the Ukraine, the Philippines, India, Indonesia and China) and what needs to be done to ensure an adequate supply of seafarers.

Moderator: Captain Robert Fay, Senior Vice President, Maritime Operations – **IRI/The Marshall Islands Registry**

Panelists:

- **Mr. Dennis Svane Hansen**, Vice President, Group Crewing Services – **BW Group**
- **Captain Panagiotis Drosos**, Chief Operating Officer - **Capital Maritime**
- **Mr. Prabhat Kumar Jha**, Group Managing Director & CEO – **MSC Shipmanagement Limited Cyprus**
- **Ms. Angie W. Hartmann**, Executive Vice President-Crew Affairs – **Star Bulk Carriers**
- **Captain Zhou**, Managing Director – **Wah Kwong Maritime Transport Holdings**

Captain Robert Fay, Senior Vice President, Maritime Operations – **International Registries, Inc., and its affiliates (IRI)**, which provide administrative and technical support to the Republic of the Marshall Islands Maritime and Corporate Registries, moderated the panel on "Addressing Crewing Needs Now & Beyond COVID-19" as part of the 11th Annual Capital Link Operational Excellence in Shipping Virtual Conference on 8

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June 2021. Panelists for the session included [Mr. Dennis Svane Hansen](#), Vice President, Group Crewing Services, BW Group; [Captain Panagiotis Drosos](#), Chief Operating Officer, Capital Maritime; [Mr. Prabhat Kumar Jha](#), Group Managing Director & CEO, MSC Shipmanagement Limited Cyprus; and [Captain Zhou](#), Managing Director, Wah Kwong Maritime Transport Holdings.

Captain Fay thanked the distinguished panelists for their keen insights and valuable input concerning the pressing need to prioritize seafarers' welfare and training to assure an uninterrupted flow of qualified officers and crew for the future. The challenges of the past year have shown quite clearly that well-trained and dedicated seafarers are needed more than ever to keep the global fleet moving to maintain vital supply chains. It is incumbent on all parties, both in the maritime and global transportation industries, to recognize seafarers as essential workers and continue to push for a global vaccination program for all maritime personnel. In addition, politicians, customs, immigration, and transportation officials around the world need to assist and cooperate to allow the expedited flow of seafarers to and from vital cities and ports. Without a sufficient supply of trained and qualified seafarers moving ships and goods around the world, we could face a global economic crisis.

Captain Fay asked the panelists to highlight any positive changes that may have come from the difficulties faced in crewing over the past year. All agreed that the cooperation found among stakeholders to allow for extended certification of seafarers and the increased acceptance of computer based and on-line training for seafarers has been most welcome.

Captain Fay summed up the panel by stating that, "Greater concern for the welfare of seafarers and cooperation between maritime stakeholders including vessel owners, operators, managers, flag States, port States, seafarer unions, and training institutions has been a significant factor in weathering the COVID-19 storm and is something we sincerely hope will continue in the future."

Captain Panagiotis Drosos, Chief Operating Officer - **Capital Maritime**, stated: "At Capital, we consider the human element a founding pillar of the shipping industry. Our approach creates an incentive for our company to inquire about the ways in which maritime health and safety and safety of navigation can be enhanced; to ensure and concurrently promote the mental, physical and material welfare of our employees onboard and ashore and their respective families, during these times of uncertainty.

During unprecedented circumstances, some 400,000 seafarers from across the globe became stranded on ships, continuing to work but unable to be relieved, in a deepening crew change crisis that threatened global trade and maritime safety. The need for emphasis on preventive security, risk management, deterrence, and threat transfer, raising global standards, and setting norms for the mental and physical health and safety, security, and efficiency of seafarers and crew changes is now apparent and imminent. The continuing inability to conduct crew changes has been the single greatest operational challenge confronting the global shipping industry since World War II.

There is growing recognition that seafarers' duties cannot be extended indefinitely and that the current situation is unsustainable. Such concerns were raised by the IMO itself, an avid advocate of seafarer welfare, through its continuing work on issues such as fatigue, fair treatment and liability, and compensation for seafarers. Indeed, most of the Sustainable Development Goals (2030 Agenda) elements can only be realized with a sustainable transport sector supporting world trade, facilitating the global economy but above all ensuring the safety and prosperity of its vital components; seafarers. The prominent notion of recognizing seafarers as key workers require unequivocal support from all relevant parties, particularly governments. It is a catalyst to resolving the crewing change crisis, therefore allowing room for long-term planning and pursuits."

Captain Zhou, Managing Director – **Wah Kwong Maritime Transport Holdings**, stated: "Besides travel restrictions and lock downs which have caused crew shortage, a lack of attention to crew welfare is becoming another important reason causing seafarer shortage. We need a unified and clear protocol on crew change and protecting seafarers during their port stay. Currently the mobility and welfare of seafarers are in a dire situation - many seafarers feel ignored and they are reluctant to join the ship; while those who are already on board are anxious about being infected at high-risk ports, and worried about when they can return to their families.

The essential status of seafarers as “key workers” should not be just empty words. Seafarers should be given priority for care, vaccinations, and access to the special corridor for crew change. All relevant parties should respect and support the appropriate protective measures implemented onboard during port stay and should provide adequate resources.”

FOCUSING ON THE HUMAN FACTOR & THE WELFARE OF SEAFARERS

The panel discussed Mental Health Issues, Catering, Benefits Package, Training & more.

Moderator: Mr. Mark O'Neil, President - Columbia Shipmanagement; President - InterManager

Panelists:

- **Captain Faouzi Fradi**, Group Crewing and Training Director – **Columbia Shipmanagement Ltd**
- **Mr. Costas Joannides**, Chief Executive Officer - **Marsh Cyprus**
- **Mr. Christian Ioannou**, Founder and Managing Director – **MCTC Marine Ltd**
- **Mr. Christian Ayerst**, Chief Executive Officer - **Mental Health Support Solutions**
- **(MHSS)**
- **Mr. Nigel Cleave**, Senior Advisor - **OneLearn Global Ltd.**

Captain Faouzi Fradi, Group Crewing and Training Director – **Columbia Shipmanagement Ltd**, stated that the maritime industry has opened its eyes to many issues during the pandemic most of them were human and technology centric. The crew change crisis has taught us the level of sacrifice and commitment of our seafarers and how we should respond to their needs in a holistic approach. A happy crew makes a happy ship. Therefore at Columbia we have made our utmost efforts to ensure in a record time that our seafarers have access to a state-of-the-art eLearning platform offering highly interactive and bespoke content available online and offline on any device which delivers customized, specific and practical training. Besides, they have access to full package provision services which include food management, training, menus and remote support plus a strictly controlled selection of provision supplies across the World. As we believe that crew wellbeing is a key to safer ships operations, our ships have access to a free 24/7 hotline for Mental Health Support which among others offer counselling, crisis management, educational approach and resilience training. In addition we have provided our crew with fitness kits. Last but not least, the CrewCare service includes individual life insurance products at a very attractive rate offered by a reputable insurance company. All seafarers regardless of their nationality or country of residence have full access to all our solutions which aim at CARING FOR OUR PEOPLE. Very soon we will also enable offline entertainment package onboard ships, including latest movies and documentaries as well as Online shopping solutions, which we believe will alleviate the effects of shore leave restrictions that were imposed because of the pandemic.

Mr. Christian Ioannou, Founder and Managing Director – **MCTC Marine Ltd**, stated: “Maritime industry employees have become far more knowledgeable and understanding in recent years about the importance of food preparation and nutrition for seafarers. That’s according to Christian Ioannou, Managing Director of MCTC, the international catering management and training provider.

Speaking at the 11th Annual Capital Link Operational Excellence in Shipping Forum, Mr Ioannou said that interest in nutrition, healthy diets and the relationship between food and mental/physical health had increased significantly since he launched MCTC in 2013.

“When setting up MCTC, I spoke to many people in the industry and no one was talking about healthy food,” he said at the ‘Focusing on The Human Factor and the Welfare of Seafarers’ panel. “Now, MCTC will host conferences with up to 400 people who want to know more about healthy eating, nutrition and how to move away from pre-prepared to freshly cooked meals.

“Catering management used to be about one thing: supplying food to vessels. Now it’s about why we provide certain foods and ingredients, and how, because supply is just a small part of what catering management companies do.

“Of course, food needs to be delivered in the best way possible, but the question we must ask ourselves is why companies like MCTC are here? Our job is to ensure everyone aboard a vessel is fed properly, which involves creating tailored, nutritious menus for different vessels and for the individuals onboard.”

Mr Ioannou added that ongoing training and education for seafarers about the benefits of eating healthily when onboard or back home was critical. "It's absolutely vital," he said. "When seafarers are home, we invite them and their families to learn about maintaining a nutritious, healthy lifestyle while they are ashore."

"We also have the Catering Competency Development Programme, a certified course that increases standards in the galley by training and supporting cooks aboard a vessel. It also gives them access to experienced consultants who regularly visit them onboard and provide weekly evaluations."

Mr. Christian Ayerst, Chief Executive Officer - **Mental Health Support Solutions (MHSS)**, urged the maritime industry to look at other industries where mental health and psychology don't have a stigma attached to them - but are both normal and seen as an enhancement to performance. The shipping industry is uniquely placed to learn-from the successes (and failures) of early-adopters of professional psychology (such as elite sport and aviation) where "positive psychology" is used to give individuals the edge. Individuals and organizations have everything to gain, and nothing to lose, by seizing the initiative.

Christian further commented on the work of MHSS: a significant increase in volume of interaction with MHSS' unique 24/7 support line - but also interactions from people asking not just for help - but how to enhance their performance and ability to work. This is significant - the call for professional psychology is being led by the end-users, and their call must not be ignored. Organizations which listen to their staff, engage independent experts and create an environment where their staff can flourish will be the winners. And only services which are carried out by experienced professionals (where psychology is essentially complex detective work), who are both relatable to users and organizations and relevant (through maritime expertise) will achieve the significant benefits: higher engagement, increased performance and productivity, reduced incidents and improved bottom-lines. These are seen both other leading industries, and must now be replicated in shipping.

Christian mentioned that the situation in India has seen a rise in the number of interactions with MHSS services - with increasing numbers of shore-staff seeking support on issues such as anxiety, misinformation and handling a rapidly changing "return to work" practice. Those working onshore are, according to Christian, the "unsung heroes" - having worked for over 18 months in incredibly stressful conditions, are at the frontline of the difficulties being faced and whose contribution has been rarely recognised. Shore staff are preferring independent expert services such as MHSS, where they feel confident seeking support, advice and improvement of their psychological fitness. An employer-sponsored program does not offer this independent expertise - and organizations and their staff will only truly flourish by bringing in professional maritime psychologists, who have the experience, passion and expertise to create an environment where everyone can thrive.

Mr. Nigel Cleave, Senior Advisor - **OneLearn Global Ltd.**, stated: "OneLearn Global, launched in April 2021 and created to serve the maritime, superyacht, energy, renewable energy, hospitality and industrial sectors, sees itself as truly a paradigm shift, focusing on modern-day learning techniques, aimed particularly with Millennials and the Gen Z generation in mind. They are native digital generations, champions at googling, who behave and learn differently due to their lifelong relationship with technology and who are used to having instant information and results at their fingertips."

The enormously effective and extremely powerful cloud-based next-gen Learning Management System has been designed to deliver both an enhanced and engaging, yet very personalised, enjoyable and intuitive learning experience through the use of digitalisation. Simplicity of use being the key objective, the LMS is really super-friendly.

Having started from a clean sheet of paper, OneLearn Global has had the benefit of building its content much later in time, with no legacy or baggage to worry about. This has allowed the team considerable freedom to produce what can only be described as some amazing content.

Fresh, bright, agile and really motivating, content can be viewed both offline and online, across devices to optimize the learner experience, driving engagement through certifications and award badges for positive encouragement, everything being recorded in the cloud.

Learners can collect points to compete with their peers, receive AI based recommendations, participate in social learning activities, interact with the courses and post their feedback in the discussion forums for each course. There is also an optional feature of attending virtual classrooms.

The LMS, has been designed to enhance skills development where a training matrix and competency management system are included and, unlike a physical classroom environment, OneLearn Global is available 24/7."

FIGHTING IN THE TRENCHES – THE SHIP CAPTAIN'S PERSPECTIVE

A 1x1 Discussion with a Vessel Captain

Mr. Nicolas Bornozis, President – Capital Link
Captain Rajeev Kaushik – Synergy Group

Captain Rajeev Kaushik, a Master Mariner with the **Synergy Marine Group** shared his insights on the various issues being faced by seafarers during the Covid 19 pandemic.

He highlighted how Seafarers have been at the fore front to keeping the world economy running in spite of the challenges and impediments arising from travel restrictions, shortage of vaccines and the limited access to shore medical facilities at various ports around the globe.

He felt that it is about time that all the stakeholders including Owners, Charterers, Governments and the regulatory bodies must come together with more than just lip service to address all the issues faced by seafarers who in turn can then continue to keep the world moving by sailing on the ships that transport some 90% of the global trade.

He expressed his appreciation and gratitude to the team in Synergy and especially the CEO Captain Rajesh Unni who has been a very dynamic force in his efforts to provide support to all the seafarers not only on the timely crew changes but also on the emotional wellbeing with free calls and counselling services through their service called WeTeam. The deep rooted sense of empathy and respect for the fellow seafarers is very evident from the very top at Synergy he stated. In these stressful times where many people are contemplating leaving the profession, he was thankful for the unrelenting support from the company to tide over the crisis with ease and manage the situation on ship in a smooth manner.

Capt. Rajeev wanted to take this opportunity to thank Capt Unni and the specially created 'Covid Task Force' team requesting them to keep supporting the seafarers and their families as they endure the worst crisis of their careers. He also was very pleased with the efforts to get the seafarers the 'key worker status' for easier travel and of course the priority to get vaccinated at the earliest through the many special camps that have been organised.

Captain Rajeev finally hoped that the joint efforts of all the stake holders would ideally see a world free of Covid where things get back to normal but until then, an immediate resolution to the free and safe movement of the seafarers besides the recognition and respect they truly deserve.

RALLYING AROUND CHARITIES THAT SUPPORT THE WELFARE OF SEAFARERS – ADDRESSING THE INDIAN CRISIS & BEYOND

The Indian COVID-19 crisis energized an industry-wide effort to create a charity fund to address the plight of seafarers and their families. The panel discussed the initiatives led by Charities to provide relief and support during the pandemic and beyond.

Moderator: Mr. Mark Cameron, Chief Operating Officer – Ardmore Shipping

Panelists:

- **Mr. Vishnu Swaminathan, Co-Founder – WeTeam; Social Responsibility Advisor - Synergy group**
- **Mr. Andrew Wright, Secretary General – Mission to Seafarers**
- **Ms. Catherine Spencer, CEO – The Seafarers' Charity**

Ms. Catherine Spencer, CEO – The Seafarers' Charity, stated: "The Seafarers Charity is very grateful to the shipping industry for their generous response to the Seafarers International Relief Fund. It's enabled urgent humanitarian work to support seafarers and their families in India. The Seafarers' Charity with our charity partners works year round to support seafarers and we look forward to working more closely with the maritime industry to see how we can explore our collaborative approach to support all those who work at sea."

CHINESE SEAFARERS FOR INTERNATIONAL SHIPPING COMPANIES

Access to skilled seafarers remains one of the main challenges for the international shipping community and China has a large pool of skilled seafarers. Furthermore, demand for Chinese crews has increased as the result of the Covid-19 crisis. The presentation aims to update you on the significant progress achieved in maritime education in China and the improvement in the quality of Chinese Seafarers, who are gradually having an expanded presence in the fleet of international shipping companies. It discussed important issues in crew recruiting, training and retention and provided an update on latest Chinese governmental regulations and efforts in promoting Chinese seafarers to meet international standards.

Mr. Terence Zhao, Managing Director – **Singhai Marine Services**, stated: "We all know because of COVID-19, there is high demand for Chinese seafarers. Shipping companies are facing crew shortage and high wage demand."

As we hear about the pandemic continuing to spread in many countries as the virus mutate, we can see that the crisis is not over so soon. It will last longer than we hope for. The uncertainties have caused a worldwide shortage of crew supply.

From our experience, international principals who never use Chinese crew in their pool face a bigger problem. With new vessel deliveries in China, they offer short contract to tide over. At times, they waited too long in hope that their preferred nationalities can get into China. But when time runs out, they have to scramble for crew.

China has ambition to be a strong maritime country. China must maintain a steady pool of quality seafarers to support the ambition. Over the years, the central government has encouraged seafaring by heavily subsidizing school fees for maritime students. Students from poor families need not pay any school fee. In 2019, China has announced tax exemption policies for ocean going seafarers when certain requirements are met. In years ahead, we can foresee that the number of Chinese seafarers will increase as the government strongly support seafaring. Having Chinese crew in the pool is an advantage.

As we hope for the pandemic to end, countries can cooperate and make crew change easy. When there is certainty, there is less anxiety. As more population and crew are vaccinated, infection will reduce. With the availability of fast test kits, the crew can quickly identify and segregate infected crew or outside people coming on board. It will certainly reduce the risk of infection and create a safer environment. We hope by then, the crew market will find its balance."

*** END OF DAY ONE ***

DAY TWO – WEDNESDAY, JUNE 9, 2021

KEYNOTE ADDRESS – SAFETY FIRST – CHANGING THE WAY THE INDUSTRY THINKS ABOUT SAFETY

Dr Grahaeme Henderson OBE, Senior Vice President, Shipping & Maritime - **Shell International Trading and Shipping Company Limited**

PANEL DISCUSSION

TOGETHER IN SAFETY – SAFETY AS A CORPORATE CULTURE & COMPETITIVE ADVANTAGE

Shipping, one of the most vital links in the global supply chain, is also one of the most hazardous industries in the world. The shipping industry has made significant steps forward in improving its safety performance. Many companies and organizations are implementing valuable practices that are making significant differences to the safety of their seafarers,

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vessels, cargoes and the environment working together towards a zeroincident future. The panel discussed the practices and expectations of key stakeholders in this pursuit.

Moderator: Dr Grahaeme Henderson OBE, Senior Vice President, Shipping & Maritime – **Shell International Trading and Shipping Company Limited**

Panelists:

- **Mr. Paul Wogan**, Chief Executive Officer – **GasLog**
- **Mr. Bud Darr**, Executive Vice President, Maritime Policy and Government Affairs - **MSC GROUP**
- **Ms. Sarah Waite**, HSSE Manager – **Shell Shipping & Maritime**
- **Mr. Andrew Taylor**, CEO – **UK P&I Club**
- **Mr. Graham Westgarth**, Chairman – **VGroup**

Dr Grahaeme Henderson OBE Senior Vice President, Shipping & Maritime - **Shell International Trading and Shipping Company Limited**, highlighted why safety is the most important subject for everyone in shipping and explained why it must be at the centre of everything that we all do. He referred to three reasons that he called the statistical reason, the business reason and thirdly, what he called the real reason. Whilst improvements have been made, the statistics show that global shipping has one of the worst safety performances of any industry worldwide including fatal accidents and suicide rates. From a business perspective, a serious incident has both direct and indirect costs, including the impact on a company's reputation. The real reason though is the lifetime impact on the families and children of our seafarers, who have entrusted their safety in us.

Grahaeme referred to every leader in shipping wanting to improve the safety performance and that more needs to be done. So, about 2 years ago, a group called 'Together in Safety' was formed, which is unique and comprises all of the shipping industry groups, many major shipping companies, P&I, Classification Societies and country representation. 'Together in Safety' has developed a strategy centred around the core themes of Leadership, Accountability, Training, and Wellbeing and Care, with more details on the website togetherinsafety.info.

Already many best practice guides have been developed based on years of collective experience. Work is in progress to develop a data collection programme to understand more deeply the underlying issues and develop corrective actions, which has been a key enabler to the improvements in safety in air and rail. There are also working groups developing the safety aspects around the future fuels such as hydrogen, ammonia, and methanol. Another area is in integrating the current initiatives around seafarer wellbeing, and mental health and suicide, to develop a single shipping approach. Grahaeme said he believed that when we work together in the shipping industry, we can make huge strides and give back to make shipping safer, and ensure that safety is number one on everyone's agenda and always comes first."

Mr. Bud Darr, Executive Vice President, Maritime Policy and Government Affairs - **MSC GROUP**, stated: "Throughout onshore and onboard operations, the well-being of our people is of paramount importance to MSC. In addition to continuously improving the technical aspects, we are focusing on promoting safety culture and recognising human factors, in order to keep our people, our ships, and our cargoes safe every day.

The shipping industry has seen significant improvements in safety performance. Yet, much work remains to be done across the whole industry. The right level of safety should not be thought of as a destination, but rather a continuous journey toward improvement. At MSC, we recognise this and continuously assess our practises and processes to minimise any risks to our people both ashore and onboard.

We believe that staying safe involves being informed and fully implementing best practices. To achieve this, MSC develops and implements a broad programme of safety management systems, policies, and procedures. The easier problems to solve are the ones that have technical solutions. The genuinely hard problems are the ones that center on how our people (both shoreside and at sea) interact with our equipment and their operating environment.

There is genuine value in collaboration and in making available tangible, practical, and timely information products to help both shipowners and seafarers in their efforts to continue to reduce safety risks. Combined efforts such as Together in Safety are well-suited to serve that role."

Mr. Graham Westgarth, Chairman – **VGroup**, stated: “I often reflect on the past during my time at sea when the culture was ‘just get it done’. However, safety is now a big priority in shipping companies although there is still much to do which provides an opportunity for leaders to step up and ensure safety priorities are clear. With decarbonisation also now being a focus, we must ensure that safety remains high on the priority list. The improvement in safety has been due to a number of factors - Society has changed – what was acceptable in the past is not acceptable today ; IMO legislation has played a part in moving our industry forward on the safety agenda and there is greater recognition that safety makes good business sense. Going forward, we need to find a way to make our seafarers’ lives simpler and not overburdened by all the requirements and procedures imposed upon them. ‘Together in Safety’ can help to push this forward as it is a platform which facilitates the sharing and development of best practice which in turn leads to an ability to develop simplified safety processes for our seafarers. I also believe that ‘Together in Safety’ can act as a conduit to interact and learn with other industries, as one cohesive body.”

UPHOLDING SAFETY STANDARDS ACROSS THE GLOBE

Port State Control (PSC) inspections investigate compliance with international conventions of foreign registered ships in their port jurisdiction. This panel discussed how PSC apply safety standards in their own inspections, focusing on key areas and practices for each jurisdiction. Furthermore, it also addressed how PSC inspection findings impact the commercial rating of vessels and the appeal process. Also, the interrelationship between inspections by PSC, flags and classification societies.

Moderator: Mr. Theo Baltatzis, General Manager – **Technomar Shipping, Inc.**

Panelists:

- **Mr. Mick Kinley**, CEO – **Australian Maritime Authority (AMSA)**
- **CAPT Wayne R. Arguin, Jr.**, Director Inspections & Compliance – **US Coast Guard**
- **Mr. Cheah Aun Aun**, Director (Shipping) / Director of Marine – **Maritime and Port Authority of Singapore (MPA)**
- **Mr. Michalis Pantazopoulos**, Managing Director – **LISCR (Hellas) S.A. – The Liberian Registry**
- **Mr. Brian Poskaitis**, Senior Vice President, Fleet Operations – **IRI/The Marshall Islands Registry**

Mr. Mick Kinley, CEO – **Australian Maritime Authority (AMSA)** stated that unfortunately the role of port State control does not look like disappearing any time soon and until all parts of our industry and users of shipping take action against substandard ships this will remain the case.

Sadly, the few operators that are still running the gauntlet of port State control, mistreating seafarers or not maintaining their ships continue to take the spotlight when it should be on those that have made amazing advances in safe operation of their ships, training of their seafarers and investments in new technology and maintenance of their ship over the last 20 years.

While we have largely driven out ships with major structural and hardware defects seafarers continue to die on ships in our waters as a result of basic failures in workplace safety. A chief officer falling in a cargo hold last week was just the latest. Will anyone be held accountable for this preventable death? Will it even appear in any industry statistics? Until the entire industry take safety seriously at this most basic level we will still have a long way to go. This includes flag States stepping up, taking action and telling the world what they have done.

CAPT Wayne R. Arguin, Jr., Director Inspections & Compliance – **US Coast Guard**, stated: “This past year presented unprecedented challenges on global shipping. From increased consumer demand and supply shortages to crew-change complications, the dependence of the global economy on the Marine Transportation System is more apparent than ever. The pandemic also presented challenges to those entrusted to verify compliance with domestic and international ship design, construction and operational standards. To minimize the potential for COVID-19 transmission aboard ships during Port State Control examinations, the United State Coast Guard employed a combination of mitigation strategies including social distancing protocols, increased personal protective equipment and, where appropriate, remote inspection techniques. While this approach worked well to address short-term public health concerns, physical attendance of trained marine safety professionals onboard vessels will remain a critical element of any compliance regime. The Coast Guard will continue to explore potential ways to incorporate remote inspection and auditing techniques to augment the physical attendance of Coast Guard marine inspectors, where appropriate, to enhance global shipping safety.

The United States Coast Guard recognizes the increasing complexity and challenges facing international shipping. The drive to increase capacity and competitiveness while reducing environmental impact has led industry to develop more complex and highly automated systems. Increased reliance on automated systems and cyber capabilities creates new risks for commercial shipping. Maritime stakeholders must collaborate and cooperate to achieve mutually beneficial goals to overcome these complex challenges, effectively employing new approaches to compliance and oversight activities. Solutions to these emerging challenges will require governments and private sector stakeholders to come together at all levels to manage global maritime risks.”

Mr. Cheah Aun Aun, Director (Shipping) / Director of Marine – **Maritime and Port Authority of Singapore (MPA)**, stated: “The role of Port State control remains crucial to eliminate substandard shipping and ensure that ships trading globally are well maintained and safely operated at all times. To ensure quality and pollution-free shipping, all stakeholders such as Flag States, Port States, ship operators, classification societies and commercial vetting organisations must continue to build relationships, cooperate and share best practices. Digitalisation is one of the key enablers that allows a safer, greener and more efficient shipping. MPA is committed to the digitalisation of the maritime industry. One of MPA’s projects is to explore the use of new technologies for the conduct of remote inspection as physical inspections becomes more challenging as a result of COVID-19 restrictions. Remote inspection ensures that inspections can still be carried out to ascertain the seaworthiness of ships calling at Singapore, while minimising exposure between the crew and inspectors. MPA’s Port & Flag State surveyors have been accessing a variety of data sources, using livestreaming with two-way communications. While there are still challenges in conducting remote inspection, MPA will continue to refine the processes so that it could complement physical inspection in the near future.”

Mr. Michalis Pantazopoulos, Managing Director – **LISCR (Hellas) S.A. – The Liberian Registry**, stated: “Regulatory compliance as per IMO conventions covering SOLAS, STCW, MARPOL and MLC, are enforced by the Flag State of the vessel and the ROs (Recognized Organizations) and audited by Port States Controls of National States. There are also other stakeholders that also check vessel’s compliance as well as safety and operational practices (vetting inspections by oil majors, the TMSA program, Rightship, P+I club inspections etc.) that are considered industry’s commercial drivers. Each one has an important role in their own right. But if the common goal is to upgrade safety standards across the globe for the ship and her crew, and identify the substandard vessel shouldn’t we “create” a holistic approach where are stakeholders cooperate together to succeed towards this goal?

From the Flag State role and the regulatory compliance the Liberian Registry presented the following good practices to promote safety that include: a) Mandatory Annual Safety Inspections b) Onboard Safety Drills (monthly) & Safety Training Sessions (weekly) c) Guidance to Masters (Safety Inspection to Ships) d) ISM/ISPS/MLC Audits & Verifications e) Port State Detention Analysis – Flag State Detention Analysis - Detention Prevention Program – Active Working Role with PSCs – Appeal PSC Detentions when they are not valid f) Casualty Investigation & Analysis (a reactive measure) g) Class/RO Cooperation & Monitoring h) Active participation in International Shipping Organizations (IMO, STCW etc.)”

Mr. Brian Poskaitis, Senior Vice President, Fleet Operations for **International Registries, Inc.** and its affiliates (IRI) which provide administrative and technical support to the Republic of the Marshall Islands Maritime and Corporate Registries, participated on the panel “Best Industry Practices – A Competitive Advantage.” The maritime community is well versed in handling tough situations; tough markets, tough regulatory standards, scrutiny during audits and inspections, and now tough conditions to keep ships moving and protect seafarers during an ongoing global pandemic. Mr. Poskaitis stated:

At the heart of upholding safety standards are the senior officers and crew of the ships who are walking the decks or deck plates fulfilling their role to safely operate the ship. Ship owners and operators that enable a competent and professional crew onboard their ships, flag States that take the responsibility to conduct adequate oversight of operations both afloat and ashore, recognized organizations acting on behalf of flag States that realize statutory certificates are more than a piece of paper, and charterers and insurers that implement sound risk management principles regarding safe operations, all play an important role as not only stakeholders but also partners in influencing safe and successful ship operations.

Port State control (PSC), often thought of as the last safety net in the picture, also play an important role. Ship owners, operators, and flag States that view PSC as an important layer of defense against complacency or mediocre operations, can gain insight and an advantage to improve their onboard operations. Although PSC is there to eliminate substandard ships or shipping practices, it can also assist in raising awareness of more operational issues that can lead to putting ships and seafarers at risk. Implementation of quality assessment programs by major port States have been and can continue to be driving factors in upholding safety standards worldwide. Flag States that understand this perspective and work in coordination with these other regulatory agencies in the achievement of the same goals of safe shipping, safe seafarers, and protection of the marine environment are putting their fleets, their seafarers, and their owners in a much better position to maintain a competitive advantage. A particular and important focus as a flag State is not to just put out standards and requirements, but to have a bench of qualified individuals with a global network that can support oversight and gauge implementation of these requirements. One thing we have learned during this global pandemic and the implementation of remote inspection activities is that a remote inspection is highly dependent on participation of the crew and operators. Just like the key to a robust safety management system is implementation, the key to a good remote inspection is the interaction with the crew and managers. In fact, interaction at the field level with senior officers and crew, and the involvement and support of the ship manager and superintendent makes all the difference. Of course, it is no substitute for putting “boots on the deck or in the engine room of the ship” but it is an important aspect of influencing safety that has been somewhat overlooked in the past. Mr. Poskaitis concluded that “interaction and engagement of entities responsible for safe operations, and principles of transparency and partnership can lead to improving global safety and the success of fleet operations.”

OPERATIONAL EXCELLENCE – SUPPORTING THE TRANSACTIONAL NEEDS OF SHIPPING ACROSS THE GLOBE

Berenberg Bank discussed how it supports the complex operational and transaction needs of the global maritime community – ship owners, ship managers, (crewing) agencies, brokers, P&I clubs and other participants in the maritime value chain – with customized services across international payments, FX, and guarantee business as well as with state-of-the-art corporate online banking solutions.

“The professional and reliable banking execution of often complex international maritime transactions is probably the most underestimated part in many deals, often considered to be ‘operational technics’”, states **Mr. Philipp Wuenschmann**, Global Head of Shipping – **Berenberg Bank**. “According to our long standing experience of more than 50 years in maritime transaction banking, successful shipping companies pay regular senior management attention to ensure a sustainable transaction banking relationship”. According to Berenberg’s recent market observation many international banks have not only exited or reduced their ship finance exposure but are also withdrawing from the transaction banking services pivotal for the globally active industry. Left without specific inhouse industry competence those banks fear to be exposed to legal or reputational risks difficult to calculate. The banking regulation today has dramatically changed the behaviour of banks: Any client onboarding and account opening first and foremost is considered to be a legal and reputational risk decision: “If you do not understand the background of ship registries you shall not enter into the account opening for the typical jurisdictions used by the industry. This is why we constantly invest in the maritime competence of our banking teams”. With regard to this complexity, a complete ‘fintech disruption’ seems to be unlikely. However, international transaction banking also means to be able to efficiently gather, process and save document information about clients and their transactions. “Here you see the digital disruption in our business to take place. We substantially invest here with the clear target to create a reliable and fully digitalized ‘end-to-end’ data flow process – from the clients desktop to the necessary core systems of a bank”, says Wuenschmann.

SUPPORTING THE SHIPPING INDUSTRY THROUGH INNOVATION, REGULATORY COMPLIANCE & TRANSFORMATION

Classification Societies play a pivotal role in the industry given their mandate to establish and maintain technical standards for construction and operation of marine vessels, to monitor compliance and to provide guidance and support. The panel discussed various initiatives to help the industry meet the new challenges from environmental compliance, ship safety and security, technological innovation, operational efficiency, human resources management and more.

THE HEADS OF THE MAJOR CLASSIFICATION SOCIETES

Moderator: Ms. Ioanna Prokopiou, Chief Executive Officer – Prominence Maritime

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Panelists:

- **Mr. Christopher J. Wiernicki**, Chairman, President & CEO - **ABS**
- **Mr. Matthieu de Tugny**, President, Marine & Offshore - **Bureau Veritas**
- **Mr. Hiroaki Sakashita**, President & CEO - **ClassNK**
- **Mr. Torsten Schramm**, President Maritime - **DNV**
- **Mr. Nick Brown**, CEO – **Lloyd's Register**
- **Mr. Ugo Salerno**, Chairman & CEO - **RINA**

Mr. Christopher J. Wiernicki, Chairman, President & CEO – **ABS**, stated: “As we leverage our lessons learned during one of the most unprecedented periods in history so we may better navigate the future, there are four major changes essentially driving four underlying challenges resulting in four global shapers. The changes are market uncertainty and predictability; regulatory impacts on the carbon journey; and the introduction of new technology and the rate of change of this new technology; as well as the impact of covid-19, which remains to be determined.

The challenges they energize are: the drive to achieve low-carbon shipping; the speed and scope of digitalization; the need to recognize and mitigate unintended safety consequences as we address and manage safety risks; and most certainly valuing the people who drive and fuel our industry each day.

These changes and challenges, and indeed all our efforts, are wrapped within four forces shaping activity on a global scale: Environmental, Social, and Governance (or ESG); International Safety Management (ISM); the Energy Efficiency Existing Ship Index (EEXI) and the Carbon Intensity Indicator (CII); as well as how we lead through our next normal – no longer a new normal, it's the next normal because our lives and experiences have been changed forever.

I see the key driver of our next normal as being the development and dissemination of digital skills and digital comfort among every person in the industry. So, in reality, digital is more about people than technology. Therefore, we need what I call “digital ergonomics”, meaning an approach to digitalization and digital development that puts the human user first and blends the human and digital components of our next normal to reinforce each other's strengths.

Such a mindset is at the heart of ABS, which is at the intersection of digital and decarbonization technologies and solutions, developing tools and innovative technologies that help us work better, smarter and more efficiently.”

Mr. Hiroaki Sakashita, President & CEO – **ClassNK**, stated: “The top priority of class is the pursuit of safety and environmental protection at every stage. A class is at an intersection of many stakeholders, but the green light is only turned on when compliance with the standard is confirmed. Those standards are a set of class rules, and international regulations, which are not the reflection of interests of any particular sector. The core of a class is a neutral and independent position to any interests, and they must continue to prove expertise so that their judgments are accepted in the industry.

Meanwhile, seeing the current challenges like decarbonization and digitalization, I believe the role of class can be extended more. To encourage innovations for resolving various challenges, someone should endorse them in line with any standard and verification, even the clear rules have yet to be established. Such certification must be quick, to follow up the rapidly advancing technology, and be collaborative, to make the adequate evaluation standards in the interaction with front runners developing innovations. A class can take a broader role in supporting and promoting advanced projects. Also, knowledge and experience gained through them will be later developed to rules commonly applicable, and further accelerates the adoption of new technologies.”

Mr. Torsten Schramm, President **DNV Maritime**, said: “Decarbonization is going to be the essential challenge of the coming years for the maritime industry. But for shipping to continue to have the positive impact it has had in developing the modern economy, we have to ensure that we continue to maintain a regulatory environment that is international, technology neutral and goal based. Classification societies have all been working with customers, regulators, and industry to enable solutions that support and facilitate the transition towards low emissions shipping for many years. However, we must continue to maintain our focus on safety.

Because without having the safety level the world expects from shipping, we can't have a successful transition to a decarbonized maritime industry."

Mr. Nick Brown, Lloyd's Register Group CEO, said: "The maritime sector is going through a rapid transformation, we've been able to help keep shipping safe during the Pandemic by increased use of remote surveys. These can be live streamed to all interested parties, including flags, charterers, insurers, vetting companies, affording the opportunity to share survey and inspection findings and not duplicate effort. It must be recognised that not all surveys can be done remotely. There is more to our surveys than just checking compliance with the rules. It's about reading the situation onboard, using not just sight but also sound, smell, touch and sharing our technical knowledge and expertise.

As an industry we rely on time-based survey regimes. That is Annual surveys and special surveys every 5 years. I believe as an industry we can use data and machine learning much more effectively to challenge our time-based inspection regime and supplement it. As we gain experience, we should look to introduce data driven, risk-based inspection, that is informed by sensors, machine learning and backed up by physical surveys and attendance by our experienced and independent surveyors around the world who attend ships when the data tells us it is necessary, not when the calendar tells us to do so.

We need both Machine learning and Human learning to further improve the safety, environmental and commercial performance of our industry. We also should consider the ship more as a system to enable this to happen. This will require greater collaboration so that individual component designers talk more to one another and we - owners, class and charterers - can extract usable data from the ships in service to improve safety, reliability and environmental performance."

Mr. Ugo Salerno, Chairman & CEO – **RINA**, was asked by the moderator whether the urgency for shipping decarbonization, the strong focus on environmental regulation, and the consequent need for experimenting and eventually adopting new technologies, was bringing the risk of overlooking the safety aspects, also thinking about recent incidents with low sulphur fuels and scrubbers.

RINA CEO highlighted the importance of research, development and testing of technologies, as the only way to master them and be sure to stay on the safe side. The importance of sound technological competence is paramount for RINA, which in the last decade has invested in the engineering sector with some important acquisitions such as the engineering company D'Appolonia and the CSM, an excellence centre for studies and development of materials.

Shipping has historically been cross-fertilised by other industry sectors, and the same will happen today with for example the management of new substances such as hydrogen and ammonia, which have been handled in other industry sectors since decades.

Rina is performing many activities which involve the use of hydrogen, from working with Alstom for trains, with SNAM to qualify the largest European gas network for the transport of hydrogen, studying containment systems which have been tested at pressures up to 1000 bars, working with SDARI and WARTSILA to study alternative fuels on ships.

And these are just a few examples of what is happening in industry and what the maritime world will take advantage of, in terms of experience.

Mr Salerno concluded highlighting how the energy transition is the greatest challenge humanity is facing at present, and that it is fundamental that all parties cooperate to ensure this transition happens safely and successfully.

When asked about compliance of existing ships with upcoming environmental regulations such as EEXI, Mr Salerno mentioned technological solutions but also slow hanging fruits such as slow steaming, when the logistic chain makes this a viable, if not even advantageous solution."

CYBERSECURITY – IGNORE IT AT YOUR OWN RISK

Beyond achieving regulatory compliance with IMO's requirement for cyber risk management, companies pay top attention to this topic as it relates to the protection of ships, seafarers, cargoes and the environment. Proper cyber security management can have distinct commercial advantages as it may help in securing vessel employment, insurance and finance. This panel brought participants up to speed with the cyber-security landscape in shipping today.

Moderator: Mr. Julian Clark, Partner – Ince

Panelists:

- **Mr. Joseph E.M. Hughes, Chairman and CEO - American P&I Club**
- **Mr. Dimitrios E. Patrikios, CEO – Kyklades Maritime Corporation**
- **Mr. Weston Hecker, Lead Cyber Evangelist and Ethical Hacker – Mission Secure**
- **Captain Thomas Brown, CEO - Shoreline**

“Cyber Risk to shipping – myth, fact, project fear?”

“It is the view of **Julian Clark (Global Senior Partner of Ince and Chairman of the CMI Cyber Crime Working Group)** that the answer is quite clearly FACT.

With a 400% increase on attack rates in the maritime sector over the past 12 months and a 900% increase on attacks on operational technology over the past three years, there can be no doubt that the maritime sector is now being actively targeted by criminal individuals and gangs, hacktivists, geopolitical activators and terrorists.

Described by Mr. Clark as the “Titanic Disaster Scenario” – he believes that the high profile attacks we know about (Maersk, CMA CGM, COSCO etc.) are the tip of the iceberg and what lays beneath the water line (unreported, failed and attacks in waiting) are the real concern.

This panel will bring together expertise in law, specialist marine insurance, P&I and the insights of a leading operator and an actual ethical hacker who operates on the good side in the world of the dark web.”

Mr. Joseph E.M. Hughes, Chairman and CEO - American P&I Club, stated: “The threat of cyber attack has become a central concern of modern society. Cyber security is therefore an inescapable imperative of both government and business in preventing the potentially catastrophic effects of attacks emanating from an array of bad actors with widely differing motivations. This reality is as much a feature of seaborne commerce as it is in any other field of human enterprise. Indeed, the shipping industry has never been more aware of the dangers of such attacks than it is at present and, in consequence of some notorious recent examples, much is being done to improve the cyber security of maritime operations both ashore and afloat. The approach of marine insurers toward cyber risks has also undergone considerable change in recent years. Some of this change relates to the identification of such risks as systemic rather than purely fortuitous exposures, leading to standardized exclusions of them in certain markets. How marine underwriters - including P&I clubs - develop policy in this area over the years ahead remains to be seen, but the subject will continue to be a focus of industry thinking for the foreseeable future.”

Mr. Dimitrios E. Patrikios, CEO – Kyklades Maritime Corporation, stated: “Living the 4IR, Global Shipping and the general Maritime sector increasingly depend on digitalization, integration of various operations, and automation of processes.

From these developments, new opportunities arise by improving our efficiency but at the same time, we face cyber threats of various impacts from external forces.

Current threat implications of maritime-based cyberattacks include:

- business disruption,
- financial loss,
- damage to reputation,
- damage to goods and environment,
- incident response cost,

- Fines or legal issues.

Maritime cybersecurity includes people, technologies, and processes capable of preventing cyber and information security breaches.

The new concept of 'cyber seaworthiness' recently introduced in the shipping insurance industry creates new landscape for action.

We need to build a significant security culture, we need maritime cybersecurity which emanates from the top.

Leadership from the top will create the necessary culture onboard and in the Office.

There are four key takeaways:

- A need to shift people's mindset towards IT security.
It is not only the responsibility of ICT Department and simply for compliance purposes.
- Second, every shipping manager needs to approach cybersecurity as an integral part of overall safety management.
Response and recovery plans should be in place, updated, and tested frequently.
- Seafarers and Office personnel need regular training to increase their awareness of the cyber threats and teach them how to employ good personal cybersecurity practices.
- There is no zero cyber risk environment today

We must live with and be chronic unease of the Cyber threats.”

Mr. Weston Hecker, Lead Cyber Evangelist and Ethical Hacker – **Mission Secure**, stated: “Cyber adversaries have escalated both the number of attacks and sophistication. Industrial cyber-attacks are up 2,000% since 2018, and ransomware alone represents 23%. So, how vulnerable are your vessels, and what can a hacker do once access is gained? What damage can be done if a ship is hacked at a critical junction, such as altering GPS data during a critical navigation point? And how do you protect your vital operations?”

The practice of ethical hacking and penetration testing has evolved over the years alongside adversaries. But when the target is an industrial operation like LNG vessels in the maritime industry, the risks and repercussions move far beyond bits and bytes to physical components with kinetic impacts. The threats are real. And in nearly all cases I've been on, the operational vulnerabilities, security gaps, and poor cyber hygiene practices often come as a surprise to most owners and operators. But it doesn't have to be.

Know what's on your network. Anything and everything you do from here on out will require you to know what's on your network today. Find out what data is on your devices and assets, and make sure you have solid, up-to-date backups. Good practices and prevention are worth a pound of cure. Or in the case of ransomware, backups could save you millions in costs and negotiation.”

Captain Thomas Brown, CEO – **Shoreline**, stated: “The headline cases concerning large scale maritime cyber-attacks and the financial impact wrought on the unlucky victims are sadly becoming too numerous to list.

Like it or not shipping companies are now squarely within the crosshairs of the cyber criminal's list of targeted, high value opportunities.

When assessing cyber vulnerabilities and attack opportunities, shipping companies are at the top of the cyber criminal's list, because they are; highly transactional, shipping finances are well understood, back door access into onboard IT and OT systems is often open, complex logistic supply chains coupled with 'just in time' delivery obligations make a denial of service (DoS) attack highly disruptive and financially damaging, there is an overt reliance upon online booking systems, particularly within the container and passenger sectors, legacy unsupported IT systems can be found on ships at sea today and there is pressure to provide increased connectivity to such shipboard systems which exposes onboard OT systems to a heightened risk of attack.

Maritime Cyber Insurance (MCI) used in conjunction with cyber security measures will increase a company's cyber resilience and transfer this asymmetric risk out of the company by; providing immediate access to a global network of expert responders, indemnifying a company for its lost profits and additional operating costs, facilitating and paying ransoms where it is legally possible to do so, providing forensic analysis of the attack along with system restitution, managing the fallout of data theft, providing legal and PR support as well as third party liability coverage when not covered by other insurances.

Perhaps a lesser known benefit of maritime cyber insurance is that it covers malicious as well as non-malicious cyber-attacks.

Although maritime cyber insurance is not yet compulsory there is a growing case for it being an essential risk management tool for any shipowner today."

DECARBONIZATION – ADAPTING FLEET OPERATIONS TO MEET REGULATORY REQUIREMENTS

Shipowners will have to make very important decisions within the next two years with regards to the technologies to be retrofitted or installed onboard their ships and the design of future ships to be ordered. Compliance with the Carbon Intensity Indicator (CII) will have an impact on how the existing fleet is managed to meet these requirements, which are expected to be approved in June 2021 and come into effect in January 2023. CII is to be calculated annually and there still a lot of questions around definitions, calculations, implementation, and enforceability.

Moderator: Mr. Mark Darley, LR Marine and Offshore Director – **Lloyd's Register**

Panelists:

- **Mr. Ralph Juhl**, Executive Vice President, Technical – **Hafnia**
- **Mr. Harshvardhan Bhawe**, Fleet Director – **Pacific Basin**
- **Dr. Arlie Sterling**, Co-Founder & President – **Marsoft**
- **Mr. Stavros Gyftakis**, Chief Financial Officer – **Seanergy Maritime Holdings**
- **Mr. Marco Fiori**, Chief Executive Officer – **Premuda SpA**

Mr. Mark Darley, LR Marine and Offshore Director – **Lloyd's Register**, said: There is a lot of interest in the upcoming Marine Environment Protection Committee meeting at the International Maritime Organisation, and the outcomes of decisions that relate to EEXI and the CII regulations, as there is still much uncertainty across the industry. This uncertainty focuses on the operational implications and the commercial implications as these will vary from sector to sector, across trades and different operational profiles.

Getting clarity about how these regulations may affect future decisions around vessels is absolutely paramount. We need this so we can make informed decisions about near term operation of existing ships and the future fleet investments, in order to deliver the 2030 ambitions.

It must be remembered that transition goes further than shipping itself. It requires collaboration with maritime stakeholders across the supply chain as we engage with the broader well to wake conversation and there is an opportunity for the maritime industry to really lead and influence that conversation.

Mr. Harsh Bhawe, Fleet Director – **Pacific Basin**, stated that global IMO initiatives and targets for decarbonisation of shipping are a necessity for a sustainable future for the shipping industry. In order to achieve these decarbonisation goals, a holistic approach involving ship owners and other stakeholders needs to be adopted. For example, related initiatives by ports can be very effective. It is also important to consider that different trades within the shipping industry face different challenges in their decarbonisation journey and

would need to be treated differently to ensure the goals are achieved while not creating a shock to the delivery of essential goods around the globe. To this end, adoption of a utilisation-based model such as EEOI would be preferable to the supply-based model of AER when assessing the emission intensity of bulk carriers. Pacific Basin will continue its ongoing efforts to reduce its carbon intensity by fleet renewal with the purchase of fuel-efficient modern second-hand ships and staying away from new buildings until new technology ships are available that are truly compatible with the industry's decarbonisation goals. The company will continue to invest in technological enhancements and operational efficiency initiatives to reduce the carbon footprint of its large existing fleet.

SUSTAINABILITY – OPERATIONAL EXCELLENCE & ESG AS A CORPORATE STRATEGY

Are Operational Excellence and ESG two different concepts? Market forces, regulatory requirements, charterer, investor and financier expectations propel shipping companies to go beyond minimum compliance requirements adopting ESG and Operational Excellence as a single Corporate Strategy.

Moderator: Mr. Nicholas Brown, Brand & Communications Director - **Bureau Veritas Marine & Offshore**
Panelists:

- **Mr. Ted Young**, Chief Financial Officer – **Dorian LPG**
- **Mr. Øistein Jensen**, Chief Sustainability Officer – **Odfjell**
- **Mr. Jesper S. Jensen**, Head of Technical Division – **TORM**
- **Mr. Paulo Almeida**, Chief Investment Officer – **Tufton Investment Management**
- **Mr. Christos Begleris**, Co-Chief Financial Officer – **Star Bulk Carriers**

Mr. Nicholas Brown, Brand & Communications Director - **Bureau Veritas Marine & Offshore**, stated: “In an engaging session, the panel addressed three key themes:

- The acceleration of change: digitalization, decarbonization and market responses (through the pandemic and both a deepening urgency and sense of opportunity) are changing our world
- The need to encourage diversity
- And seafarers – perhaps the biggest ‘S’ in ESG: where do they fit into ESG health and well-being for operational excellence

There was strong convergence on the issues and opportunities and a rapidly growing sense that ESG is now firmly embedded and integrated in the panel’s companies’ day-to-day to activities. Time ran out before addressing in depth the role of seafarers and their future under evolving ESG requirements that are now defining corporate shipping strategy.”

Mr. Øistein Jensen, Chief Sustainability Officer – **Odfjell**, stated: “Climate change is one of the biggest challenges of our times. Shipping contributes to climate change by emitting almost 3% of global CO2 emissions, so shipping is a part of the problem – but also part of the solution. As shipping is the most energy-efficient way of transporting cargo over large distances, our industry is instrumental in realizing a more sustainable global trade. But the industry needs to decarbonize. The IMO target of 50% emission reduction in 2050 is not enough. The ambition should be to decarbonize to zero greenhouse gas emissions as soon as possible.

To achieve zero emissions, we have to develop technology, adopt regulations and market-based measures to drive and incentivize decarbonization.

In our view, a separate sustainability strategy is a thing of the past. To truly succeed, a sustainable business strategy must embrace and incorporate environmental, social, and governance matters throughout.”

*** **END OF FORUM** ***

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- A.P. Moller Maersk
- ABS
- American P&I Club
- Anglo-Eastern Univan Group
- Ardmore Shipping
- Ardmore Shipping Services
- Australian Maritime Authority (AMSA)
- Berenberg Bank
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FORUM HIGHLIGHTS:

- Presentations/panel sessions were delivered in real time video format
- Digital library of content with longer shelf life available for replay after the forum
 - Sponsors' Documents and Resources: the latest industry and financial reports, white papers, company videos, latest presentations and more
 - All materials can be saved into a briefcase and reviewed later

The Replays of the Forum are available at <http://forums.capitallink.com/opexcellence/2021/>

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Quickly adapting to the unique challenges brought by the pandemic, Capital Link hosted full scale digital conferences in 2020 keeping the information flow uninterrupted and the industry connected - through live panel/presentation sessions & real-time video networking among delegates. Our virtual conferences are now integrated into our digital product line, along with our webinars, podcasts, and dedicated maritime website - adding a unique and complementary benefit to all our industry partners.

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