

WAVES

The future global supply chain

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As Singapore's leading multipurpose port, Jurong Port handles more than 15 million tonnes of general, bulk, and containerised cargo each year. As we accelerate our digital transformation, Jurong Port has developed a Digital Tally System (DTS) for cargo tallying which will improve efficiency in the handling of breakbulk cargo and lay the foundation for a digital-ready Next Generation Multipurpose Port. DTS will facilitate effective tracking of cargo operations and digitised tallying on a real-time basis, bringing about accuracy and transparency to all stakeholders for better resource optimisation and planning.

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Foreword

Dear members,

Looking forward to the coming year, we are all hoping for a return to some sort of normality as vaccines are rolled out across geographies. Hopefully, there will be more international alignment in respect of cross-border movements, especially regarding Crew Change, where many countries could seek inspiration from Singapore.



We in Singapore have taken innovative steps to ensure that crew can continue to pass safely through the state in order to reach their vessel to begin their journey home or start their term. Frontline maritime workers in Singapore are also given priority to be vaccinated.

Throughout this period, the Port of Singapore has remained the world's top bunkering port and has featured at the top of port ratings. In this issue we look more closely at how it has performed during this time of unprecedented difficulty.

Global supply chains have continued to function well despite the circumstances of 2020 and Peter Schellenberger, Vice President Supply Chain at Thome Shipmanagement, shares his views on the impact COVID-19 will have on supply chains and the learnings that can be taken from the past year.

We have talked in previous issues about the PIER71 Smart Port Challenge, a joint collaboration between the Maritime and Port Authority of Singapore and NUS Enterprise. The technology article in this issue takes a look at FUELSAVE, which took second place in the competition. The company has developed innovative technology to support decarbonisation through advanced combustion conditioning.

With this first issue of Waves for 2021, I would like to wish you all a rewarding and safe year.

René Piil Pedersen

SSA Vice President & Honorary Secretary,
General Affairs Committee Chairman

THOUGHT LEADERSHIP



TECHNOLOGY



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Notice to all SSA members – stay in contact

As you are aware, the SSA Secretariat often sends out email circulars to inform you, our members, of SSA's events and the latest developments in the industry. We have noticed that some of you may not be receiving the email circulars sent out by the SSA Secretariat – as your office email server may have classified our emails as spam.

To resolve such issues, kindly include SSA's domain name ssa.org.sg into your email whitelist/safelist so that you remain in our communication channel. Thank you for your kind attention.

Event Calendar

March

sun	mon	tue	wed	thu	fri	sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

March 2021

- 01-21/03** SSA YEG Charity Walk, Run, Cycle
- 05/03** MSC Maritime Ladies Networking Day (SMF)
- 09/03** SSA Joint Webinar on SGUnited Jobs and Skills Programmes for Maritime
- 18/03** Tech Talk Thursdays 2021: Episode 1
Topic: Disruption & Innovation in the Maritime Supply Chains
- 18/03** 15th Anniversary Symposium of ReCAAP

April

sun	mon	tue	wed	thu	fri	sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

April 2021

- 02/04** **Public holiday: Good Friday**
- 08/04*** Tech & Demo Day
- 15/04*** SSA YEG International Women's Day Webinar
- 19-23/04** Singapore Maritime Week 2021 (MPA)
- 20-22/04** 5th Singapore Maritime Technology Conference (MPA)

May

sun	mon	tue	wed	thu	fri	sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

May 2021

- 01/05** **Public holiday: Labour Day**
- 13/05** **Public holiday: Hari Raya Puasa**
- 21/05** SSA Educational Talk Q2 – No. 1
Topic: TBC
- 26/05** **Public holiday: Vesak Day**
- 28/05** SSA Educational Talk Q2 – No. 2
Topic: TBC

*TBC

+ Information correct as at 5 March 2021 and subject to change.

The future of the global supply chain



As the pandemic continues around the world, we spoke to Peter Schellenberger, Vice President Supply Chain at Thome Shipmanagement, to hear his views on the impact COVID-19 will have on the global supply chain.

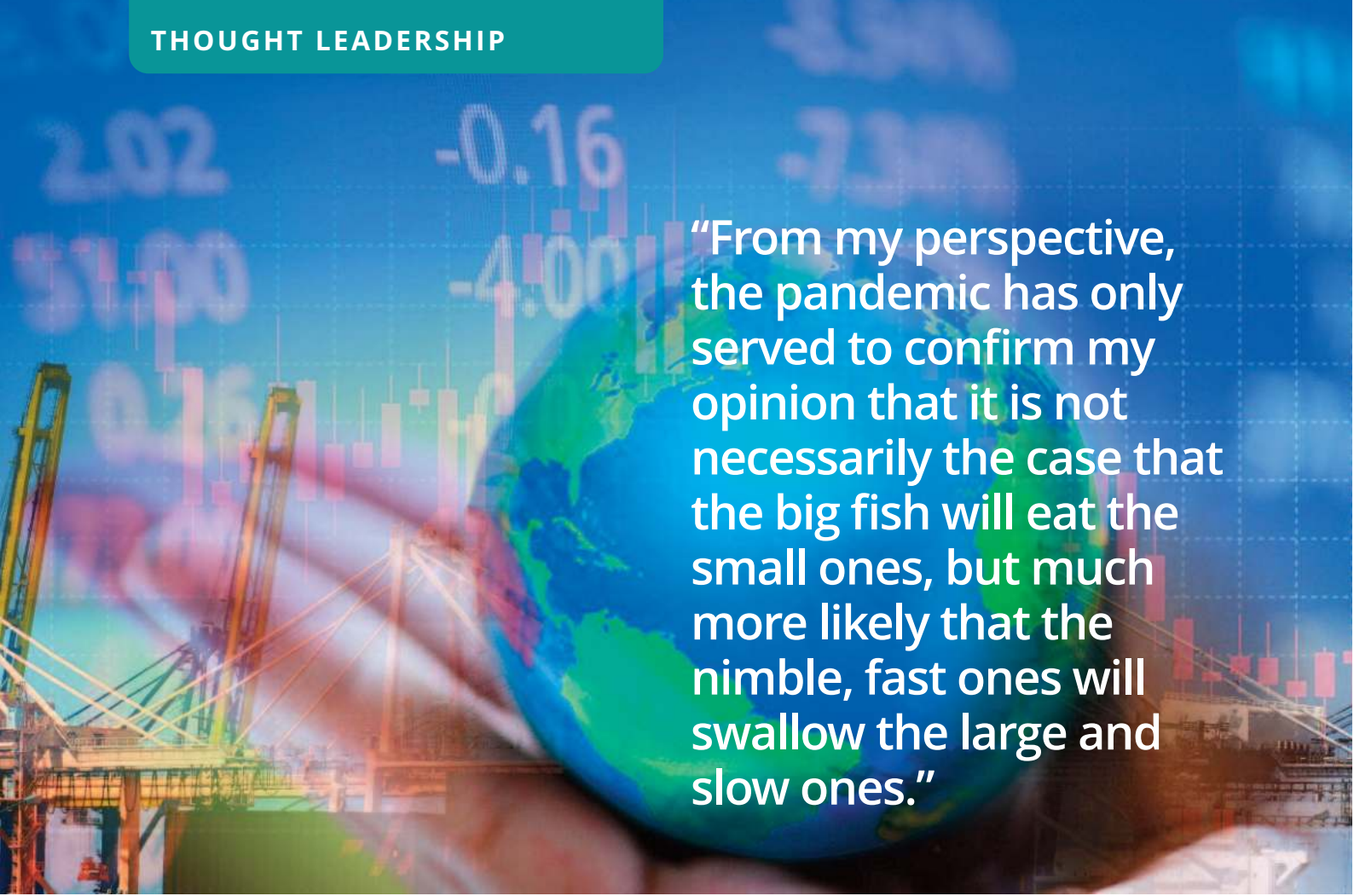
Q What specific challenges have arisen in the global supply chain during the COVID-19 pandemic?

The pandemic has created an unprecedented challenge to all businesses, not least the shipping sector, and throughout this period there has been a constant need for nimbleness and flexibility. In response, many of the

former habits and standard operating procedures that were in place no longer apply as the circumstances have changed so much and needed a chameleon style approach.

In addition, at times the situation has been such that previous structures and firm agreements have had to be broken, or at least modified, in order to solve urgent problems requiring an immediate response. We have all become adept at improvisation and firefighting, and looking for smart, out-of-the-box solutions has become more important than ever.

Most notably, the pandemic has reinforced the importance of fair-trading partnerships between client and service provider. We have found that where we had grown relationships and trust, despite the unexpected challenges, there were very few mishaps as we worked through decisions. Good, and unbureaucratic, solutions were often found. These relationships had often built up over many years, and without zoom!



"From my perspective, the pandemic has only served to confirm my opinion that it is not necessarily the case that the big fish will eat the small ones, but much more likely that the nimble, fast ones will swallow the large and slow ones."

Q Do you think the challenges were due to the pandemic or that it simply highlighted weaknesses that already existed?

As the pandemic continued, certain aspects of the business took on more importance. Having a strong IT backbone system in place has been critical. And it has been fundamental to have trading partners who were willing to go the extra mile, generally as a result of established good previous payment practices and having a mutual respect built on reputation.

On the other hand, those systems and relationships which were not particularly strong before the crisis eventually collapsed. However, in their place, new relationships have been forged, and also smaller and more agile players have found their way into the supply chain structure, especially those newcomers with good digital solutions.

Q What adjustments have companies working within the global supply chain been making to overcome the recent challenges?

Companies have been taking different approaches to dealing with the recent challenges, but I think that there are a couple of strategic decisions that all the organisations that have dealt successfully with the pandemic have taken.

One step has been to invest in best-in-class integrated systems, as problem solvers and trackers, to complement existing structures. The other is to invest in good people and make sure they have received appropriate training so that they are able to go the extra mile in case of need with the right tools in their toolboxes. These organisations have also worked hard to develop an element of trust, managing their teams through targets or results in these times of "working from home".

Q Do you see these becoming permanent changes or do you think companies will revert to their original ways of working once the world returns to 'normal'?

I would hope that some experiences are lasting but I am afraid that 70-80% of people or organisations may fall back into old patterns once things normalise. In my view, however, these are not the ones that will be successful in the long term, and the more forward thinking will be looking to build on what they have learnt throughout the past year.

Q There has been talk of countries looking to increase manufacturing capabilities nearer to home to avoid possible shortages in the future – do you think this is likely to happen and become more prevalent or unlikely due to economic factors?

It will absolutely happen. The manufacturing landscape will change, not only to bring down logistics costs or to reduce the dependence on trade pressures, but also to shorten supply cycles.

Another disruptor that we are testing is, for example, 3D printing, which will bring production close to our (moving) target and will have a significant effect on production

techniques. 3D printing appears particularly interesting for parts that are either obsolete or have a long production lead time.

Q How will such changes impact shipping, e.g. intra/international routes, intermodal transportation etc?

Initially I believe that the volume and revenue of more localised production will not impact much, but the changes will be permanent and cannot be stopped. The first true impact may well be in only one to two years, along with a true change in mindset of users and decision makers which will result in an expectation that supply chains can respond with agility to events as they happen.

Q Has your view of the future for the global supply chain, and how it functions, been changed by the pandemic?

From my perspective, the pandemic has only served to confirm my opinion that it is not necessarily the case that the big fish will eat the small ones, but much more likely that the nimble, fast ones will swallow the large and slow ones.

Part of the recipe book for success will be digital transformation and meaningful system integration, as well as the reckoning that this all will cost money. You have to plant the seeds before you harvest.



Save Energy. Save Money. Save the Planet.

Despite the current focus on alternative marine power sources, internal combustion engines (ICEs) are here to stay and can be made cleaner and more competitive through the use of renewable fuels and advanced combustion conditioning.



In today's shipping industry, the pressure to decarbonise is unrelenting, with urgent action needed to meet the Paris Climate Agreement goals, and the International Maritime Organization's (IMO) ambitious target to reduce Carbon Dioxide (CO₂) emissions by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008. IMO has also set a further goal of a 50% reduction in total annual greenhouse gas (GHG) emissions by 2050, compared with 2008 levels.

A growing and highly motivated fraction of the shipping industry as well as other stakeholders are also demanding action to curb maritime transport's impact

Even if the technical feasibility of burning clean fuels in ICEs is assured, only economically viable solutions will drive sustainable change.

on the environment. This includes the growing role of sustainability within the selection criteria for tenders, pressure from major global charterers and shippers whose customers are demanding change, as well as the demand to increase operational and cost efficiencies. C-suites overseeing global organisations are being challenged by their shareholders to deliver healthy profits while meeting ambitious Economic, Social and Corporate Governance (ESG) targets and increasing enterprise value.

Combustion engines key to decarbonisation

Significant and complex challenges remain when it comes to agreeing the best route to meeting climate targets. One aspect focuses on the much-lauded use of alternative marine power sources, versus the burning of cleaner fuels (such as biodiesel, biomethane, and synthetic natural gas) in internal

combustion engines (ICEs).

In a paper titled, 'The role of combustion engines in decarbonization – seeking fuel solutions', leading classification society, DNV GL argues that two and four stroke ICEs are so well proven and established that they will continue to have a central role in ship propulsion for decades. With many alternative marine power solutions in their infancy, the paper states that ICEs can still compete if appropriate low-carbon fuels can be reliably procured – at the right time and at the right price. Wärtsilä concurred with this view in its essay 'Flexibility key to enabling shipping's transition to future fuels', stating that there is no time to wait for an ideal solution to meet decarbonisation targets. The engine manufacturer argues that ICEs offer the best vehicle to manage current uncertainty. With a limited exchange of components, Wärtsilä suggests that vessels powered by ICEs will be equipped for the future to burn any clean fuels expected to become available over the coming years.

Tackling inefficiencies

However, even if the technical feasibility of burning clean fuels in ICEs is assured, only economically viable solutions will drive sustainable change. One way of making the process of burning clean fuels in ICEs more competitive is through the use of advanced combustion conditioning (such as FS MARINE+), which tackles inefficiencies in the combustion process in order to drive cost savings, as well as emissions optimisation (Co₂ and Co₂ equivalent) for asset owners and charterers, all while reducing engine wear and tear. FS MARINE+ does this by dynamically injecting hydrogen, oxygen, water and methanol in a unique combination in three different locations of the air intake, which optimises the stoichiometric mix for a leaner and cleaner combustion. The solution also allows some of the dirty and/ or expensive primary fuel to be substituted with a cheap and clean burning alcohol distillate, delivering real net costs savings and fuel economies.

Developed by German energy efficiency enhancement and cleantech company FUELSAVE, FS MARINE+



MODULAR & SCALABLE – RETROFIT SOLUTION

MODULAR SYSTEM EASY TO RETROFIT & SCALE FROM 100 kW to 100 MW+



FS MARINE+ Modular System - Freely scalable from 100kW to over 100MW, shown as examples of a skid type installation and individual modular installation and container packaging

supports all current and future fuels, liquid or gaseous in nature. It offers a transitional solution for retrofitting the merchant fleet and beyond throughout the clean-fuel transition, leveraging energy efficiency and fuel flexibility while reducing cost and emissions and any performance deficits. Taking a biodiesel as an example, Shell FAME offers strong CO₂ reduction, but 60% higher Nitrogen Oxide (NOx) emissions than the diesel (MDO) alternatives. This NOx level could be reduced if Shell FAME was used in combination with FS MARINE+, which cuts NOx to provide the best possible synergies and fuel flexibility.

Urgent action to 'green' existing fleet

Notwithstanding the potential benefits of applying advanced combustion conditioning to ICEs burning cleaner fuels, it's important to remember that the answer to shipping's decarbonisation challenge does not come down to a binary argument between new and existing propulsion systems. The route to decarbonisation is far more complex, taking in a wide range of design, technical and operational measures –

with new research continuing to inform the debate on the future direction of shipping.

The University of Manchester produced a paper that is changing the way we think about decarbonisation. The paper 'Shipping and the Paris climate agreement: a focus on committed emissions', highlights the potential benefits of using the existing fleet as a vehicle to achieve decarbonisation targets, as opposed to delaying until more sustainable ships come online. The researchers' findings suggest that, without action, existing ships could use up the industry's carbon budget before new ships are taken into account. It recommends that policies to cut shipping's CO₂ emissions must focus on decarbonising and retrofitting existing ships, rather than just relying on new, more efficient ships to achieve the necessary carbon reductions.

While the research paper did not explicitly focus on ICEs versus alternative propulsion systems, it could be inferred, given the infancy of alternative propulsion systems, that the findings further support the argument

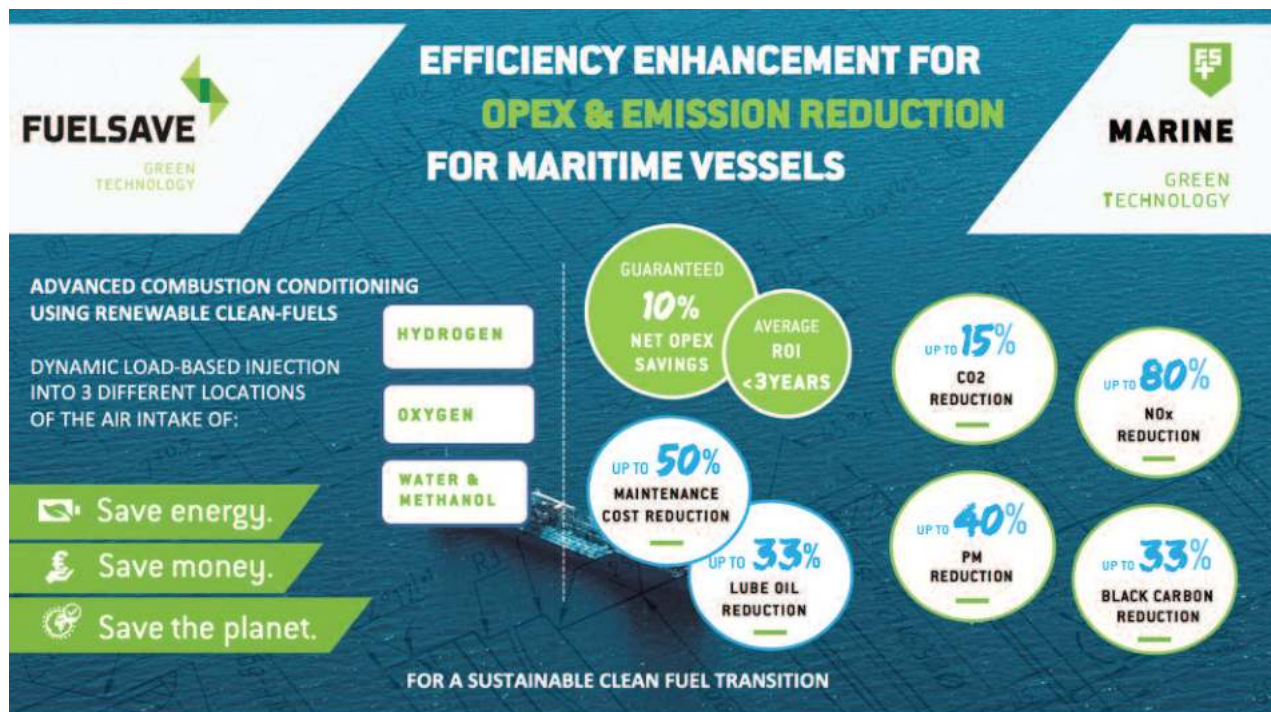
from DNV GL and Wärtsilä that ICEs could play a key role in helping the industry to meet decarbonisation targets in the short to medium term. Even as we wait for cleaner fuels to become widespread across the industry, advanced combustion conditioning, like FS MARINE+, could provide a significant contribution now, cutting primary fuel consumption reduction by 10-20%, achieving emission reductions of 8-15% in CO₂, 10-20% Sulphur Oxide (SOx), 30-80% NOx, 40% Particulate Matter (PM) and 33% Black Carbon (BC).

Even as we wait for cleaner fuels to become widespread, advanced combustion conditioning could provide a significant contribution now.

Simplicity should not be overlooked

While future gazing has a key role in addressing the environmental impact of the global shipping industry, such long-term deliberation about the role of future technologies must be balanced against the need to take urgent action to address the impact of the existing global fleet now to meet targets for 2030 and beyond. In its bid to meet ambitious climate targets, it would be prudent for the shipping industry to not overlook established and arguably simple solutions such as ICEs in combination with clean drop-in fuel alternatives, which could prove invaluable when harnessed in a way that incorporates clean fuels and advanced combustion conditioning.

FUELSAVE won second place in PIER71's Smart Port Challenge 2020. They are now working with several Asian shipowners to establish pilot projects and are in the process of making their first strategic partner agreement in Japan. They are also receiving funding from the European Union's Maritime and Fisheries Funder (EMFF) for their two-stroke project, CleanerShip, under Grant Agreement 958949.



FS MARINE+ OPEX savings and emission reduction for combustion engines combining Co2 and GHG savings while increasing profitability

Singapore's 2020 maritime despite COVID-19 pandemic

Despite the global challenges of 2020, Singapore remains the world's top bunkering port with total container throughput remaining relatively stable at 36.9 million Twenty-foot Equivalent Units (TEUs) as the port remained open during the pandemic.

The 2020 performance of the Port of Singapore was announced by Mr Chee Hong Tat, Senior Minister of State for Foreign Affairs and Transport, at the Singapore Maritime Foundation New Year Conversations event.

Mr Chee explained that there was a steep decline in early 2020 when COVID-19 first struck but international sea volumes have shown signs of recovery from the second half of last year, helping Maritime Singapore to stay resilient even though the economy retracted. Furthermore, the port remained open throughout the pandemic regardless of the significant disruptions to supply chains that caused congestion at ports around the world.

Regardless of the challenges faced by the maritime industry during 2020, Singapore retained its top position in the Xinhua-Baltic International Shipping Centre Development Index for the 7th consecutive year. Additionally, the Port of Singapore was named the best Asian seaport for the 32nd time at the Asian Freight, Logistics and Supply Chain Awards. Under the MPA's Maritime Sector Incentive Scheme, 19 new international shipping groups and maritime companies joined the Singapore International Maritime Centre (IMC) which grew in scale and diversity. Existing companies with an established presence in Singapore also expanded their operations.



Mr Mok Chak Yong, Consul (Political) of the Singapore Consulate-General accepting the "Best Seaport - Asia" Award on MPA's behalf at the 2020 Asian Freight, Logistics and Supply Chain (AFLAS).

Regardless of the challenges faced by the maritime industry during 2020, Singapore retained its top position in the Xinhua-Baltic International Shipping Centre Development Index for the 7th consecutive year.

Mr Chee said that these trends reflect a vote of confidence in Singapore's stability, connectivity and capabilities. He added that when the seas are rough and dark clouds are looming on the horizon, Singapore has differentiated itself as a trusted hub and a safe harbour for maritime companies.

performance is resilient

Vessel
Arrival Tonnage
(billion GT)



2019 2.85
2020 2.90

Container
Throughput
(million TEUs)



2019 37.2
2020 36.9

Cargo
Throughput
(million tonnes)



2019 626.2
2020 590.3

Bunker
Sale Volume
(million tonnes)



2019 47.5
2020 49.8

Tonnage
Singapore Registry of Ships
(million GT)



2019 97.3
2020 95.0

Best Seaport Asia for



32nd

time at Asian Freight,
Logistics and Supply
Chain (AFLAS) Awards

The
Singapore
Shipping Tripartite
Alliance Resilience
(SG-STAR) Fund is the

1st

global ground-up
tripartite initiative with
international partners
to work with
stakeholders in
seafaring nations on
concrete solutions for
safe crew changes.

Singapore 7th



consecutive year as the world's top shipping hub on
the Xinhua-Baltic International Shipping Centre
Development (ISCD) Index

SG Crew Change Guidebook -

set of procedures for a "safe corridor" to facilitate crew change in
accordance with the International Chamber of Shipping (ICS)'s
Framework of Crew Change Protocol and MPA's requirements. Hailed
as a model by IMO for member states to emulate.

Prioritising
frontline
maritime
workers for



COVID19
vaccination – exemplary
port for others to follow

SMF New Year Conversations: Building A Stronger Maritime Singapore Together



2021 was the first time in the Singapore Maritime Foundation (SMF)'s history that a webinar, instead of the usual cocktail reception, was held to gather the maritime community to celebrate the new year. Themed "Building A Stronger Maritime Singapore Together", the virtual event was held on 13 January and saw over 250 attendees including industry leaders, maritime partners and students from Institutes of Higher Learning (IHLs).

In his welcome address, Andreas Sohmén-Pao, Chairman of SMF, thanked the industry's frontline workers for their tireless efforts in keeping global trade moving, as well as the rest of the maritime community's contributions to Maritime Singapore. He then shared some of SMF's initiatives in the past year amidst disruptions, such as the MSC Maritime Careers Workshop, the MaritimeONE Scholarship Awards and the establishment of the



International Advisory Panel (IAP) on Maritime Decarbonisation with the support of the Maritime and Port Authority of Singapore (MPA).

“SMF has worked hard over the past year to support continued growth in areas such as talent development and decarbonisation. As we move into 2021, SMF will continue our efforts in close collaboration with industry partners to build a stronger Maritime Singapore,” said Mr Sohmen-Pao.

Mr. Chee Hong Tat, Senior Minister of State, Ministry of Foreign Affairs and Ministry of Transport announced Singapore’s maritime performance for 2020. He also spoke



about the three driving forces affecting the maritime industry – disruption, digitalisation and decarbonisation – which will present new opportunities and challenges for Maritime Singapore, as well as the Government’s focus on three key areas – trust, transformation and talent, in order to support the industry.

The panel discussion on the topic of “Building Maritime Singapore’s Sustainable Future” was moderated by Mr Sohmen-Pao. Panellists comprised industry leaders – Caroline Yang, President of the Singapore Shipping Association (SSA), Quah Ley Hoon, Chief Executive of MPA and Simon Kuik, President of the Association of Singapore Marine Industries (ASMI). They discussed the performance of the local maritime industry in 2020, the outlook for 2021 and measures to enhance the competitiveness of Maritime Singapore.

The panellists agreed that the COVID-19 pandemic highlighted the need to be adaptable and resilient. Digital transformation was identified as a key enabler to allow companies to build overall resilience of the industry to tide through this challenging period. Looking beyond the global pandemic, talent attraction and development remain essential for the industry’s continued growth, as a future-ready maritime workforce is necessary to support ongoing transformation initiatives. Furthermore, a stronger collaboration among industry stakeholders would help deepen knowledge and skills among industry players, increasing overall competitiveness.



International Safety@Sea webinar series



The International Safety@Sea Webinar Series, organised by the Maritime and Port Authority of Singapore (MPA), was held from 30 November to 1 December 2020. More than 900 attendees from over 40 countries participated in four sessions which discussed maritime safety, seafarers' mental health & wellness, ship safety and incidents, as well as ship management in the new normal.

The opening session on "Maritime Safety: New Normal, New Paradigms", held on the first day, was opened by Mr Chee Hong Tat, Senior Minister of State, Ministry of Foreign Affairs & Ministry of Transport, Singapore. Other speakers for the opening session included Dr Heike Deggim, Director of Maritime Safety at the International Maritime Organization, Mr Esben Poulsson, Chairman of the International Chamber of Shipping, and Dr Cao Desheng, Director General, China Maritime Safety Administration

(MSA). Thereafter, Mr Ishak Ismail, Chairman of the National Maritime Safety at Sea Council, Singapore, moderated a robust discussion with panellists comprising Dr Deggim, Mr Poulsson and Mr Li Hongyin, Deputy Director General, CHINA MSA.

On the second day of the webinar series, three plenaries were held, covering the topics of "Mental Health & Wellness: Helping Seafarers Cope Better During a Pandemic", "Ship Safety: Reflecting on Incidents, Causality and the Way Forward", and "Ship Management: Lessons Learnt for Safety and Standards in the New Normal".

Keynote presentations were made by Ms Jillian Carson-Jackson, President, The Nautical Institute, Mr Jakob P. Larsen, Head, Maritime Safety & Security, BIMCO and Mr Koichi Fujiwara, Chairman, International Association of



Mr Chee Hong Tat, Senior Minister of State, Ministry of Foreign Affairs & Ministry of Transport, Singapore, speaking at the Opening Session.

Classification Societies (IACS). Ms Carson-Jackson spoke about how stakeholders in the maritime industry had to keep working together innovatively to identify solutions to help seafarers cope during the pandemic and beyond. Mr Larsen shared BIMCO's perspective on maritime incidents and how they viewed the future of safety.

Mr Fujiwara spoke about the IACS's role in ensuring that the shipping industry could continue functioning through the COVID-19 pandemic, and how it protects the safety of

its surveyors and ship crew through the deployment of latest technologies. These keynote presentations were each followed by a panel discussion.

A record number of 15 winners for the MPA International Safety@Sea Awards were also announced on the second day of the event. Organised by MPA, the Awards are given out annually to recognise the outstanding efforts of organisations and individuals who have contributed towards maritime safety. The winners were selected from an unprecedented number of nominations

received this year, and the high quality of submissions had also prompted the National Maritime Safety at Sea Council to introduce Letters of Commendation for the first time.

In all, the seventh edition of MPA's flagship event on safety at sea featured 21 speakers from across the maritime community. Further details of the event, as well as webinar recordings, are available at www.safetyatseaweek.com.



[L to R] Capt. Kunal Nakra, Deputy Director, Transport Safety Investigation Bureau, Ministry of Transport, Singapore, Mr Jacob Damgaard, Loss Prevention Manager, Britannia P&I, Capt. Vijay Cherukuri, General Manager, HSEQA, Executive Ship Management Pte Ltd, and Capt. Kevin Wong, Port Master, Maritime and Port Authority of Singapore, at the plenary discussion "Ship Safety – Reflecting on Incidents, Causality and the Way Forward".

Singapore Shipping Association's Tech and Demo Day is back!

On 24th November 2020, with the approval from the Singapore Tourist Board to hold a MICE event, SSA successfully held its 2nd Tech and Demo Day at Sofitel City Centre Hotel. Despite the regulations and restrictions which everyone must adhere to, the limited seats for the event were fully taken – a clear sign of interest in technology and excitement for the resumption of face-to-face events.

Themed as Smart Maritime - it has been curated to have a series of solutions to help organisations restart and accelerate recovery, post-COVID.



During the event, technology providers showcased their services designed to meet the needs of both SME and global shipping players. These services ranged from maritime cyber security to smart energy management and vessel operation.

Alongside the presentations, the companies which had presented also ran demonstration booths, allowing the participants to understand more about their services.

"As the world prepares for a new normal, there will be new waves to ride. We cannot and should not allow the fear of change or failure to hold us back from reaching a new digital horizon. I do not have a crystal ball to promise



with certainty that you will succeed. I can tell you though that at SSA, we will do our best to guide and assist our members in the journey towards digitalisation," said Mr TS Teo, newly appointed Chairman of SSA's Digital Transformation Committee.

The SSA would like to thank all speakers and our sponsors, WSG, Dualog and The Viswa Group for making the second edition of SSA Tech & Demo Day a success!



SSA webinar helps industry to learn from significant incidents

2020 was a challenging year for the shipping industry. In addition to the economic difficulties, the industry has been rocked by high profile maritime incidents that took place in the middle of the global pandemic.

On 25 July, the MV Wakashio ran aground south of Mauritius and an estimated 1,000 tonnes of her bunker spilled into the ocean before her bow was scuttled on 24 August. Days later, on 3 September, MT New Diamond caught fire east of Sri Lanka and burned for over a week before the fire was extinguished, fortunately without any significant spillage.

Given the complex nature of the MV Wakashio incident, and the many stakeholders involved, it was unfortunate, if expected, that the reportage on the incident in the press was, at best, often incomplete and, at worst, misleading. To this end, the SSA, together with the Asian Shipowners' Forum, the Federation of ASEAN Shipowners and TRIOX Environmental Emergencies, organised a webinar: Emergency Preparedness, Best Practices and Future Challenges to Minimise Marine Pollution.

Joselito Guevarra, Senior Technical Advisor at TRIOX, shared the case studies from the MV Wakashio and MT New Diamond incidents, discussing the strong multi-national responses to the events, lessons learned and how the MV Wakashio incident may result in the reshaping of not just the existing international maritime regulations and conventions, but also the regulatory frameworks of coastal states.



He highlighted that, from a shipowner's perspective, businesses must be prepared to manage an emergency or crisis on four levels:

1. Ship (SOPEP, Emergency Responses, Bridging Plans)
2. Business Unit Level (Emergency Management)
3. Corporate Level (Crisis Management and Business Continuity Planning)
4. Regional or National Level Contingency Planning

The presentation was followed by a panel discussion with panellists Kunal Pathak, Loss Prevention Manager at Gard Singapore, Stephan Grenon, Principal – Managing Director of TRIOX, and Mario Moretti, Asia Marine and Energy Senior Director of RINA. The panel was moderated by Dylan Ow, Technical Manager of Asian Shipowners Association. During the discussion, all the panellist agreed on the importance of having drills, events and better communications, as well as engagement. These will help to provide speedy responses to minimise pollution and manage crises.

SSA's Shipping Finance Committee's Webinar sparks lively discussions

The most recent webinar organised by SSA's Shipping Finance Committee: Rate Transition, Ship Finance and Sustainable Funding, was a timely investigation into the transition from IBORs to RFRs which will take place before the end of 2021.

Most companies and borrowers are aware of finance referencing rates such as LIBOR, SOR or SIBOR (together known as IBORs). Some \$200 - \$300 trillion in mortgages, consumer loans, corporate debt, derivatives and other financial instruments reference LIBOR, and its influence as a market barometer is even more wide reaching. However, both LIBOR and SOR are scheduled to be fully phased out by the end of 2021 globally and they will be replaced by new Risk-Free Rates (RFRs) and, while there may have been some delays due to COVID-19, the process continues apace.

The transition from IBORs to RFRs is not straightforward as the rates are constructed differently and both borrowers and lenders will need to prepare for the change.

The process to adapt in Asia may seem slow, but there will be greater momentum to move to the new benchmark in coming months, including for Singapore. Already more deals have been linked to the Singapore Overnight Rate Average (SORA), the new benchmark rate which will be replacing the Singapore dollar swap Offer Rate (SOR) and the Singapore Interbank Offered Rate (SIBOR) by the end of 2021.

To address the changes the transition will necessitate, the SSA Shipping Finance Committee invited David Roberts, Partner at Deloitte, to introduce the key issues. There has already been considerable discussion amongst regulators and banks, but SSA members also have a significant



interest in the issue given how big an investment a ship represents.

Mr Roberts shared how the transition might affect ship owners seeking financing. In addition to identifying risk exposures, owners will need to put in place appropriate contractual fall-backs, ensure systems' readiness and, most importantly, obtain a thorough understanding of the new products that will replace the IBORs.

The presentation led to a vigorous panel discussion involving Martijn Hoogerwerf, Director of Sustainable Finance at ING, Captain Vinod Janardanan, Director of Bureau Veritas Solutions, Marine & Offshore for South Asia, and Bertrand Jabouley, Head of S&P Global Ratings' Sustainable Finance Team in Asia-Pacific. The panel was moderated by Corrado Forcellati, KPMG Singapore's Director of Sustainability Services. All experts in their respective fields, the panellists discussed the availability of funding in a challenging market.

Given the growing importance and value of Environmental, Social and Corporate (ESC) governance factors, the panel discussion spent a fair amount of time discussing how factors increasingly impact the decision-making process. They also sought to present a holistic view on how SSA's members might navigate the challenges of a post COVID-19 world together.

SSA Executive Director is officially appointed as the first IFC Shipping Industry Advisor



The Information Fusion Centre (IFC*) works closely together with the shipping industry to ensure maritime security (MARSEC). To deepen the collaboration, IFC officially appointed Michael Phoon, the Executive Director of the Singapore Shipping Association (SSA) as the first IFC Shipping Industry Advisor last year.

During the appointment ceremony held on 24 Nov 2020, a letter of appointment was signed between LTC Lester Yong, Head of Information Fusion Centre and Caroline Yang, President of SSA; and witnessed by RADM Yong Wei Hsiung, MARSEC Command / MARSEC Task Force, Republic of Singapore Navy.

During the ceremony, RADM Yong said: "It is only through close collaboration with the shipping industry that

potential perpetrators can be deterred and prevented from making attacks so that we can achieve a Safe and Secure Seas for all."

As the representative voice for the industry, IFC is confident that Mr Phoon will continue to play an important role to enhance MARSEC by bridging communication with the global shipping industry and provide industry insight to the centre.

**IFC is a regional MARSEC centre in Singapore that facilitates info-sharing and collaboration between partners. Since its inception, the IFC has been at the forefront of providing actionable information to cue responses by regional and international navies, coast guards and other maritime agencies to deal with MARSEC threats and incidents. For more information, pls visit <https://www.ifc.org.sg/>.*

SSA Young Executives Group promotes healthy mental wellbeing while raising money for Charity

The Greek philosopher and author of "Parallel Lives" said "What we achieve inwardly will change outer reality." Our being and situation is the manifestation of our mind. A strong mind is a strong life.

Given the importance of mental health - especially with the challenges and uncertainties with the evolving global COVID-19 situation - the SSA Young Executives Group (YEG) organised an exclusive virtual meditation session for SSA and YEG members to help improve their mental wellbeing and contribute to a charitable cause at the same time.

The YEG Committee invited Laura Zaccaria, a certified trainer who teaches meditation and yoga for charity to

facilitate the meditation class. Laura does not charge any professional fees for her lessons but encourages her class attendees to make donations to a charity of either her choice or that of the participants.

Participants gave positive comments that the virtual session was better as they could do this within the comfort of their homes and, for some, they experienced an increased sense of calmness after the practice. They were also heartened to know that through this exercise, the SSA YEG Committee donated S\$2,000 to the Willing Hearts, a non-profit organisation dedicated to providing daily meals and other support services to the underprivileged, the needy, and other marginalized members in Singapore.



YEG VIRTUAL MEDITATION/BREATHING WORKSHOP FOR CHARITY



Unstoppable spirit of SSA Young Executives Group (YEG) to network and connect virtually!



The safe management measures and social distancing restrictions may have put a stop to large scale in-person social gatherings but they do not stop the SSA YEG members from networking among themselves and with the Singapore Maritime Foundation (SMF) Young Executives and Students Club (YES) members, albeit virtually!

Thinking out of the box, the SSA Young Executives Group (YEG) made good use of “ZOOM” to conduct two innovative networking activities in December 2020.

Virtual Cocktail Masterclass

In the virtual cocktail masterclass networking session, Mr. Vojta Bazant, who led the bar program at Bread Street Kitchen for Gordon Ramsay, conducted a short introduction on the technical and refined approach to the craft of making great cocktails. He then guided YEG members on a practical session on the basics for the different styles of cocktail and how to make cocktails the proper way.

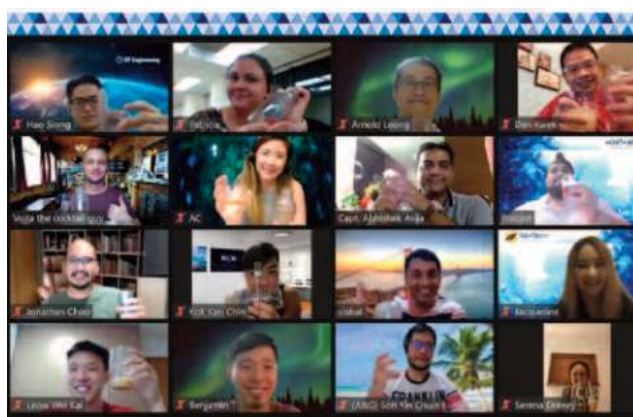
With cheer and chatter, YEG members prepared and relished their cocktails from the comfort of their homes while enjoying each other's conversations, jokes and

company via the virtual sessions. With much laughter throughout the session, it is no wonder that members are looking forward to such further activities soon.

Virtual Escape Room Adventure

For the virtual Escape Room Adventure, teams comprising members from the SSA YEG and SMF YES Club had to work with their respective team members, putting their detective skills to the test and gathering clues in search for the answers they needed to free themselves and their team mates from the Curse of the Werewolf crisis.

With a time limit of 90 minutes, the young and the young at heart debated and deliberated on answers to given clues that would lead them to the 'key' to lift the curse and gain 'freedom'.



Top teams were rewarded with e-vouchers. At the end of the session, only one team was able to unlock all the clues and saved all participants. Congratulations to Ms Akanksha Batura Pai and her team mate from SMF YES Club who each received a \$50 Grab e-voucher for their victory!

STARTUP MEMBERS



CyberOwl Pte Ltd

CyberOwl helps maritime and CNI asset operators gain visibility of their remote systems, actively manage the cyber risks and gain assurance of cyber compliance. We provide a multiple award-winning cybersecurity monitoring and analytics solution, a managed service and specific cybersecurity consulting to support the asset operator.

Medulla, our solution provides visibility of systems and raises early warning of cyber attacks on operational assets. Medulla is optimised for challenging marine and offshore operating environments.

ASSOCIATE MEMBERS



Argo Pte Ltd

Founded in 2019, Argo Pte Ltd is an independent shipbroker specialising in spot chartering, contracts of affreightment, period charter & SNP. We focus on the transportation of gases, chemicals, edible oils, lubricants, specialized products and petroleum products.

We provide differentiated, inspired, and effective commercial maritime solutions with unwavering integrity.

We are members of BIMCO and are insured by ITIC.



CPI (SGP) Services Pte. Ltd.

CPI (SGP) Services Pte. Ltd. is the representative agency of China Shipowners Mutual Assurance Association (aka China P&I Club or CPI). CPI is an internationalized P&I Club with about 190 members and over 65 million tons GT entered tonnage, it provides solutions including P&I, H&M, FD&D, Charterers Liability Covers etc. Its Singapore members include IMC, Chengxin, PIL, Cara and Winning etc.



Global Maritime

Global Maritime is a leading global provider of Engineering and Marine Consultancy services (Marine Warranty Survey, Mission Critical/DP Assurance, Marine Advisory, Project Management and Engineering) with over 40-years' experience in Offshore operations. We employ over 250 employees, including an experienced team of Mariners, Chief Engineers, Naval Architects and Engineers, across 19 countries in Asia Pacific, Europe, Americas and the Middle East.



Orcades Marine Asia Pte Ltd.

OMA has been established for over three years; pioneering and innovative, we provide consultancy and project management expertise for wave, tidal, floating/ fixed marine renewable energy solutions, underpinned by cross sector expertise from the shipping, ports and offshore sectors. The founding members have worked in the renewable sector worldwide since the earliest days of wave and tidal energy.

Training Calendar | FEBRUARY - APRIL 2020

COURSES OPEN FOR REGISTRATION				FEES* (SGD)		*Second figure shown is after grant
Course Title	Start Date	End Date	Duration	SSA Members	Non-SSA Members	
SS600 & Basic SS648 in the Bunker Industry	23/02	24/02	2 Day	\$856/\$136	\$11284/\$204	
Principles of SS648 and its impact on the Bunkering Industry	03/03	03/03	1 Day	\$481.50/\$76.50	\$802.50/\$127.50	
Principles of Shipbroking & Chartering	23/03	25/03	2.5 Days	\$642/\$342	\$963/\$513	
Introduction to LNG as fuel in shipping	31/03	31/03	1 Day	\$428/\$228	\$642/\$342	
Maritime HR Management	07/04	08/04	2 Days	\$642/\$342	\$963/\$513	
Principles of Shipping Documentation and Practices	13/04	16/04	4 Days	\$834.60/\$444.60	\$1251.90/\$666.90	
Principles of Shipping Operations and Practices	27/04	30/04	4 Days	\$834.60/\$444.60	\$1251.90/\$666.90	

*Fees subject to prevailing GST. MCF Training Grant is available for eligible participants. MCF Training Grant is not available for the courses – "Understanding Import/Export Techniques and Documentation" and "Effective Written Communication in the Shipping Industry". Please refer to www.mpa.gov.sg/mcf for more information. Dates may be subject to change. Download the course registration form at: <http://www.ssa.org.sg/images/ssa/pdf/Course%20Application%20Form-20Sept2016.pdf> and for further enquiries, please contact Kuna at 6305 2267 or email kuna@ssa.org.sg



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**Source: Euroconsult, Prospects for Maritime SATCOM, 2020, market share VSAT units