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Constant change

As one leading shipowner said recently, change is the only constant in shipping.

With the IMO 2020 global sulphur cap kicking in on January 1, the maritime industry faces what has been described as its single biggest regulatory challenge since the requirement for double-hull tankers almost 30 years ago.

And beyond that the ambition to halve shipping's carbon emissions by 2050, approaching zero by the end of the century, will require what International Maritime Organization secretary-general Kitack Lim has described as a 'new propulsion revolution.'

Already arguments rage about the best ways forward. Should scrubbers be considered an acceptable alternative to clean fuels if all they do is deposit sulphur back in the oceans? Is sulphur-free LNG (liquefied natural gas) anything more than merely an interim solution if it is still a fossil fuel offering only a 20% reduction is CO2?

Inside we look at some of the issues involved, our Cover Story examining the formation of a new Getting to Zero Coalition and the roadmap it envisages, while elsewhere in the issue we run defences of both LNG (p.22) and scrubbers (p.101).

But as experts point out there will be no 'silver bullet' in reaching these targets, with multiple future fuel and technology solutions possible and different routes favoured for different ship types and trades.

And as Sir Roger Gifford, head of the UK's new Green Finance Institute, urged during London International Shipping Week: 'let not the perfect be the enemy of the good.'

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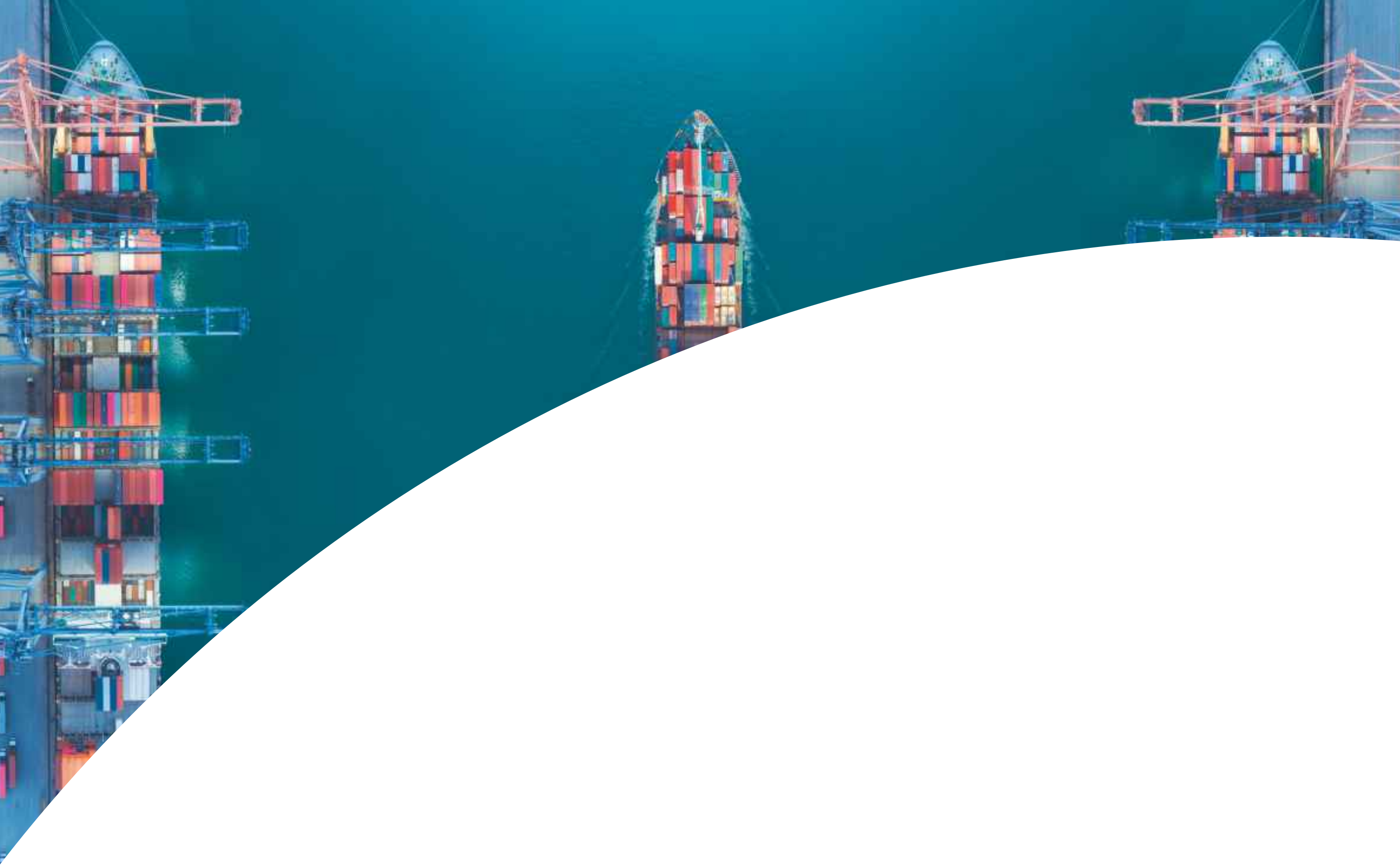

Contents

Benefits from 'chaos'

Seatrade's **Barry Parker** in New York and **Hong Liang Lee** in Singapore examine the recent spike in tanker freight rates that saw unprecedented highs reached in mid-October.

Call it the 'Trump bonus.' By early October, the tanker markets were 'on fire' in the aftermath of the late September imposition of US sanctions on some of the Cosco tanker fleet, which was taking several dozen VLCCs and smaller vessels out of the market.

Upward pressures, in both spot and, importantly, period trades emanating from the market tightness were resonating and cascading down to the other vessel types.

Deutsche Bank transportation equities analyst Amit Mehrotra explained to clients, in an investment note, 'During times of uncertainty, charterers generally go long coverage and are more than willing to pay up to secure vessels given the massive value of the cargo (VLCCs transport 2m barrels of crude worth $120m) … allowing ship owners to benefit from the chaos, per usual.'

Market chatter suggested that VLCCs were netting upwards of $100,000/day time charter equivalent, while actual period fixtures, basis one year, were worth $50,000/day. At one point spot rates were reported to have briefly touched $300,000/day.

The pressure also extended into financial markets, where listed equities of tanker owners saw strong gains. For example, Frontline, which had been trading between $7 per share and $9 per share for much of Q3, broke upward to around $11.50 per share in the early days of October.

The values of secondhand tankers also rose sharply, with VesselsValue reporting the price of a 20-year-old VLCC had risen 6.5% over the first two weeks of October, with other sizes also showing rises of between 2.1 and 5.7% over the same period.

The Baltic Exchange reported that tanker Forward Freight Agreement (FFA) volumes likewise spiked in October in the wake of physical market volatility, with 27,200 lots traded in the clean and dirty tanker markets for the week 7-11 October, dropping to 15,847 lots the following week.

'Volatility in the tanker market is at a record high and, for the first-time, tanker FFA volumes have exceeded dry FFA volumes,' it said. 'An underlying reason is the greater perceived risk in the market due to global uncertainty, such as trade sanctions. When the market is looking to hedge its risk, the physical market is restrained by the number of available vessels and counterparty exposure. FFAs offer an alternative risk management solution.'

Markets settled down as October progressed, but freight rates remained elevated with significant tonnage still marginalised.

Hugo De Stoop, chief executive of tanker owner Euronav, said in late October that while spot prices had come down from their peak earlier that month, they were still considered firm at about $100,000 a day for a VLCC. These large crude carriers were being chartered for about $40,000 a day just a month earlier, he pointed out.

Euronav, which has 90% of its fleet chartered on the spot market, can expect day rates of $65,000-75,000 on average for its VLCCs, De Stoop added.

Platts Analytics opined that the higher freight rates are likely to make shipowners think twice about sending their vessels to dry dock to be fitted with scrubbers. It was expecting approximately 60 VLCCs to head for dry docks in the fourth quarter ahead of the IMO 2020 global regulation, taking more tonnage off the market. Each scrubber installation takes roughly one month.

Frode Morkedal, head of shipping research at Clarksons Platou Securities, said the official forecast for next year is $60,000 a day but 'we could see higher rates as ships postpone their (scrubber) retrofit', in order to take advantage of high prices.

Platts Analytics further estimates that 26 VLCCs are being used for 'discretionary' floating storage, though many are older vessels and would likely be avoided by certain operators. 'Also, shipowners will increase their speeds in the hope of getting more fixtures at these elevated rates, which ultimately add tonnage to the market and reposition ships,' it added.

Crude carrier freight rates, in particular VLCC rates, had skyrocketed to all-time highs due to a combination of a quick succession of unrelated incidents, including the abovementioned US sanctions on Chinese ships and vessels heading to dry dock for scrubber installations.

The climb in tanker rates had started after the attack on the Saudi oil processing facilities in Abqaiq in mid-September and accelerated when the Trump administration sanctioned a number of Chinese tanker companies, including Cosco (Dalian) on 25 September.

'To find a reference to [October's} skyrocketing rates, we must go back 15 years, almost to the beginning of the tanker super cycle, in the winter of 2004…' said Erik Erik Broekhuizen, tanker analyst at New York-based Poten & Partners. ●

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LNG trade hots up

Barry Parker looks at how trade in LNG is showing impressive growth, matched by a steady increase in the LNG carrier fleet after last year's record deliveries.

LNG seaborne transport has been booming on the back of a dramatic growth in liquefaction capabilities.

Liquefied Natural Gas trade has averaged a very healthy 9%+ year-on-year growth since 2016, reaching almost 350m tonnes a year, according to analysts at Banchero Costa in their October 2019 Market Outlook.

In the first nine months of 2019 that growth has accelerated in certain trades. LNG exports from Australia increased by 13.4% y-o-y to 56.2m tonnes, just short of Qatar's 56.9m tonnes, the report said.

The US is rapidly catching up with the leaders. In late summer 2019, multiple LNG tankers were loading 'commissioning' cargoes at the newly opened Freeport LNG export facility on the Texas coast while a one-time LNG import terminal, at Elba Island on the Savannah River, was set to begin exports within the year.

The US Department of Energy has flagged up record US exports of liquefied natural gas in summer 2019 – of 5.2bcfd (billion cubic feet per day), equating to nearly 40m tons if annualised. Sabine Pass LNG, at the border of Texas and Louisiana, was the leader, followed by fellow Cheniere Energy unit Corpus Christi Liquefaction.

DNV GL's recent Energy Transition Outlook report also predicted that global LNG export capacity will increase by 45% between 2017 and 2020, with 90% of this capacity from projects already sanctioned in the US and Australia. Major importers are likely to remain Japan, China and South Korea.

As is the rule in shipping, cargo demand has generated greater vessel supply. 'The LNG carrier fleet increased significantly in 2018, by 11%, due to record-high newbuilding deliveries,' states Banchero Costa. 'We expect fleet expansion to continue at about 7% per year over 2019-2021, which is in line with the average of the last decade.'

In the workhorse 120,000cbm – 199,000cbm capacity segment, the orderbook to trading ratio reached 25.5% at the beginning of Q4, the analysts point out. This is rather high – but other factors are at work.

As in the tanker sector (see previous page), geopolitical issues have the potential to disrupt the market. This was evident in late September, LNG shipping behemoth Teekay LNG announced that its unit engaging in exports of gas from Yamal (in Siberia) had become a 'Blocked Person' under US sanctions on Iran.

The Yamal fleet – of four existing "ARC 7" vessels, with two still slated for delivery in late 2019 – was jointly owned by Teekay and a company within Cosco's tanker subsidiary, at the time that the sanctions on the Cosco fleet were implemented.

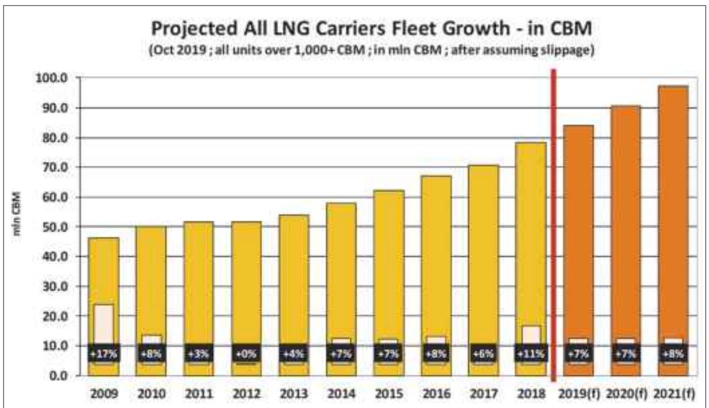
The Yamal project, jointly controlled by Russian energy producer Novatek (50.1%), Total (20%) and Chinese interests (29.9%), is due to transport some 16.5m tonnes of LNG a year through the port of Sabetta, with all LNG production sold to customers in Europe and Asia under 15- to 20-year contracts.'

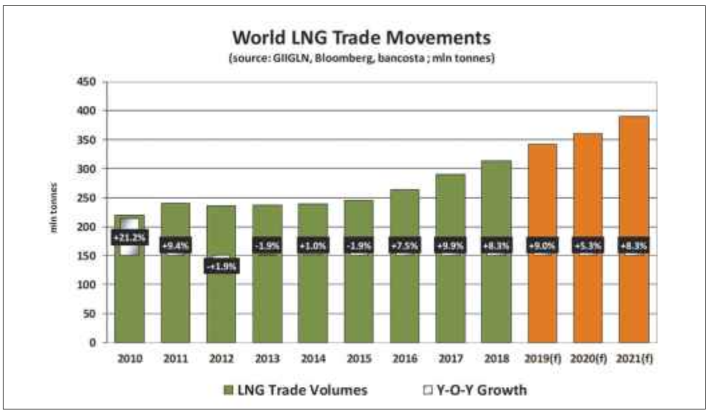
Fearnleys, in early October, pegged short-term charter hire for 155,000cbm-165,000cbm vessels at $130,000/day, up $40,000/day in just two weeks since the imposition of the sanctions, the rate for short-term hires sharply exceeding Fearnleys' estimated one-year T/C rate of $83,000/day.

In late October, Teekay announced that it had found a workaround in an 'arm's length deal' with the Cosco entity. The US company's six vessels represent a significant 40% of the 15-strong ice breaking fleet expected to be serving Yamal (along with conventional LNGs).

Seasonality has added to the mix. Equity analyst Greg Lewis, of brokers BTIG, in mid-October wrote: 'LNG spot rates surged…on the back of a tightening market which also benefitted by the sanctioning of a handful of Chinese-owned LNG ships that trade intra-Asia.

'And while these sanctions have turbo-charged LNG spot rates near term,' he noted, 'the market had been methodically climbing higher over the last few months.' ●





SOURCE: **BANCOSTA**

End of slump in sight

The protracted slump of dry bulk shipping is coming to an end, finally, as developments toward a gradual recovery are in motion. **Hong Liang Lee** reports.

A cloud of uncertainty over what is the most preferred ship profile for long-term operation has put a brake on newbuild orders, while scrubber retrofitting works are tightening supply, amid overall strong demand.

'We are slowly and steadily getting back to normal after being burdened by significant capacity, generated by all that cash that was available,' said Ralph Leszczynski, head of research at Banchero Costa.

In 2018, just 28m dwt or 300 units entered into operation. For 2019, Leszczynski forecast 40m dwt or 410 units of actual deliveries will hit the waters.

In terms of newbuilding contracts, the first nine months of this year saw 105 units or 10.4m dwt of newly contracted vessels.

'We expect 3% net fleet growth in 2019 compared to 4% in 2018 amid limited scrapping,' Leszczynski said. Demolitions are expected to stay modest due mainly to the age profile of the fleet. Only 9% of the trading vessels are over 20 years old, while 21% are less than five years old, he added.

Per Heiberg, cfo of Golden Ocean, said capacity supply is in check as many owners are reluctant to place orders for new ships due to international environmental regulation creating uncertainty over what technology is needed for new ships to operate over the next 20-25 years, and what is the best fuel to use in order to meet emissions regulation.

The IMO has stated that by 2050 shipping needs to at least halve its total greenhouse gas (GHG) emissions over what they were in 2008. The immediate future from 1 January 2020 is a reduction in ships' fuel sulphur content to 0.5% from the current cap of 3.5%.

Yang Lei, managing director at Sumec Ocean Transportation, is expecting a positive first half 2020 as IMO 2020 is removing some capacity from the market as those ships go into drydock to retrofit exhaust gas cleaning systems or scrubbers.

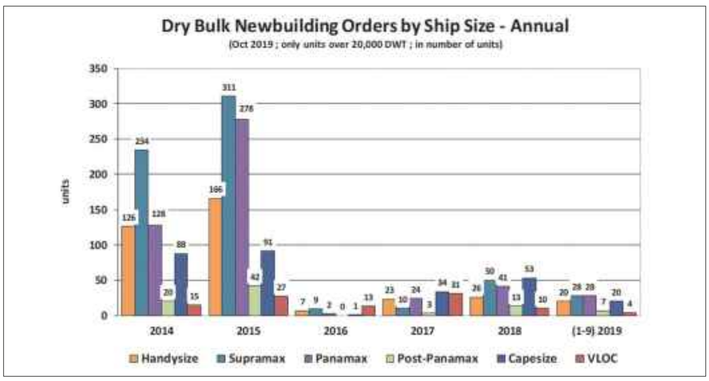
'We are seeing delays in scrubber retrofits from 30 days to 40-45 days. The first half of 2020 will see vessel supply disruption arising from unqualified fuel, possible scrubber failure and availability of low sulphur fuel oil,' Yang said.

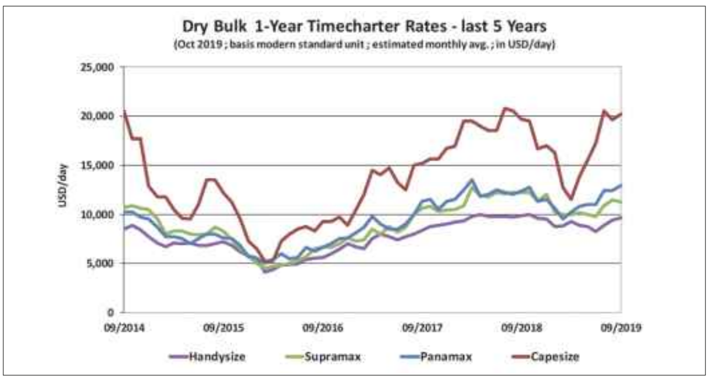
In terms of demand, the global dry bulk trade stays huge at approximately 2bn tonnes a year, despite disruptions this year from the Vale dam burst and the cyclone in Australia with both incidences cutting out some 100m tonnes of iron ore from going to the market.

The short-term volatility saw the Vale dam disruption taking out around 70m tonnes of iron ore and another 30m tonnes impacted by Australia, in addition to the US-China trade war in the background that has created ripple effect on trades.

Stamatis Tsantanis, ceo and chairman of Seanergy Maritime Holdings Corp, however, observed that 'market recovery is happening and as of today we are trading at higher rates compared to the year-ago period, supported by overall strong demand.'

Tsantanis added: 'With a newbuild capesize priced at \$55m and a five-year-old capesize at \$25-26m, it doesn't make sense to invest in a newbuild. So I don't see any immediate threat on oversupply in the next one to two years. Moreover, despite asset values dropping to low levels which by right should attract investors, we don't see that.' ●





SOURCE: BANCHERO COSTA

Terminals no longer guaranteed success

Jim Hanscom examines the growing body of evidence that not all container port projects are the recipe for sure-fire commercial success they once were.

Psst, Buddy, wanna buy a port? Wanna a hot seat at the globalization table? Wanna run with the big dogs? Wanna see the world? Wanna let the world see you?

The Chinese may build you a port for free, if you're willing to live in the obscure outback.

Caveat. The days when expanding container demand could be relied upon to save marginal projects have passed, according to Remco Stenvert and Andrew Penfold, authors of a new report Container Terminals: Paths to Profitabilty.

Rocky paths or not, ports haven't yet stumbled into the financial nether regions occupied by carriers. Only one of those is considered of low-rated investment grade, and Maersk appears willing to give up its status as the industry's largest for a glide path to becoming just another carrier. Its status as the industry's pace setter in matters of rates, service and innovation is in jeopardy.

But ports are subject to the same forces that have driven carriers near to the wall, and individual ports in a time of overcapacity are subject to the carriers' whims.

According to the report, the container port and terminal business 'faces greater uncertainties now than at any time since the container revolution started in the late 1970s.'

Ports have certainly prospered during that time, and financial instruments backing them have become preferred vehicles for infrastructure investors that have very, very long time horizons. Ah, the power of compounding unit growth. Now, the study says, ports are affected by a range of external factors.

That would include: the retreat of globalisation in the face of rising protectionism; growing financial instability since 2009, with growth funded by mounting debt levels; a structural change in demand with many developed economies attaining peak container movements; the challenge of near-sourcing strategies; technological challenges presented by blockchain and 3D printing; and environmental considerations over which operators have no control. Typhoons and orcas didn't make the list.

AUGUST IMPORTS TO US in teu

Shipments	Change	y-o-y %
China	575,544	-1.7
S. Korea	213,072	+25.5
Germany	66,885	-3.1
Taiwan	61,551	-5.5
Italy	51,011	-1.5
Hong Kong	42,984	-19.8
Singapore	41,271	-1.2
India	40,511	+13.7
Los Angeles	493,946	-3.6
Elizabeth	243,203	-1.1
Savannah	114,472	+17.0
Norfolk	69,014	+0.7

Add the normal risk list of shipping overcapacity; alliance instability, the pressure of ever larger vessel sizes; regional terminal overcapacity. Oh, and the threat posed by the adjustment to the new fuel regulations. The report doesn't drop down to individual cases but sticks to a base case of 1.27bn teu in 2025, up 35% from last year when global volumes edged past the 1bn mark for the time, growing to 1.7bn teu by 2030. A less optimistic scenario would produce 1.29bn teu in 2025 and 1.53bn in 2030.

But shipping is a strange beast. Amid all this, Maersk surprised with an updated forecast for EBITDA (cash flow) next year that was higher than previously. The carriers appeared to have centered on a rate strategy that encompasses the higher fuel costs, whether from scrubber investments or the refinery.

The Chinese continue to build ports as part of its Belt and Road Initiative, albeit with controversy. To date, they are up to 52. On the political front, uncertainly is considered a friend where US impeachment proceedings hang over Donald Trump, and thereby his tariff policies.

Of more moment, perhaps, is the Chinese internationalism of its production in the face of a trade war as a parallel to near-shoring. Intra-Asia trade has increased substantially as a result.

But there does seem to be a little more instability than usual in the air, as indicated by the August import shipments to the US compared to the previous year (see tables).

In short, shipping could be likened to a rubber ball being pushed down in the water. The farther down it goes, the higher it ascends upon release. Port promoters and speculators are poised for a bounce. ●

PHOTO: IMO

Facing up to the GHG challenge

Shipping is by far the least carbon-intensive transport mode for moving cargo but nevertheless must play its part in tackling the growing climate change crisis as the new Getting to Zero Coalition espouses, writes **Paul Bartlett**.

As climate activists upped their protests in many of the world's major cities early in October and governments came under fire for paying lip-service to climate issues but doing little, few in shipping can still think that it's business as usual.

A series of recent initiatives, pioneered by many top-tier shipping companies, banks and NGOs, is demonstrating the industry's resolve in the support of the International Maritime Organization's (IMO) 2030 and 2050 greenhouse gas (GHG) reduction ambitions which, when first agreed, were seen by some as aspirational rather than achievable.

Shipping's latest move – the high-profile September launch of the Getting to Zero Coalition at the UN Climate Action Summit in New York – is yet another marker demonstrating the industry's determination to raise the pace, both at sea and on land, in hastening the world's decarbonisation process. Its aim, closely aligned with the IMO's initial GHG Strategy, is to push forward shipping's decarbonisation with a view to having commercially viable zero-emission vessels (ZEVs) in operation by 2030.

IMO secretary-general Kitack Lim attends UN Climate Action Summit

This, experts insist, is essential if the industry is to stand any chance of meeting either the IMO's 2030 ambition of a 40% reduction in shipping's annual GHG emissions per unit of transport, or its 2050 target of a total reduction of shipping's emissions by at least 50%, and more if possible, both compared to 2008 levels. Ultimately, the IMO aims to phase out GHG emissions entirely as soon as possible this century, thereby aligning global shipping with the Paris Agreement on climate change reached in December 2015.

Getting to Zero Coalition

Often pilloried as 'a dirty business' and traditionally very poor at pushing out its plus points, global shipping certainly has its fair share of laggards. But even they should now be taking notice of newly motivated owners and operators, fuel suppliers, equipment manufacturers, financiers and, crucially, customers.

They should also take note of the standing of the signatories. The Getting to Zero Coalition is a partnership between the Global Maritime Forum, Friends of Ocean Action and the World Economic Forum. It has been signed by more than 70 leading companies and organisations and has the backing of many of shipping's principal lenders, signatories to the Poseidon Principles (PP) of 'responsible' ship finance, launched in June.

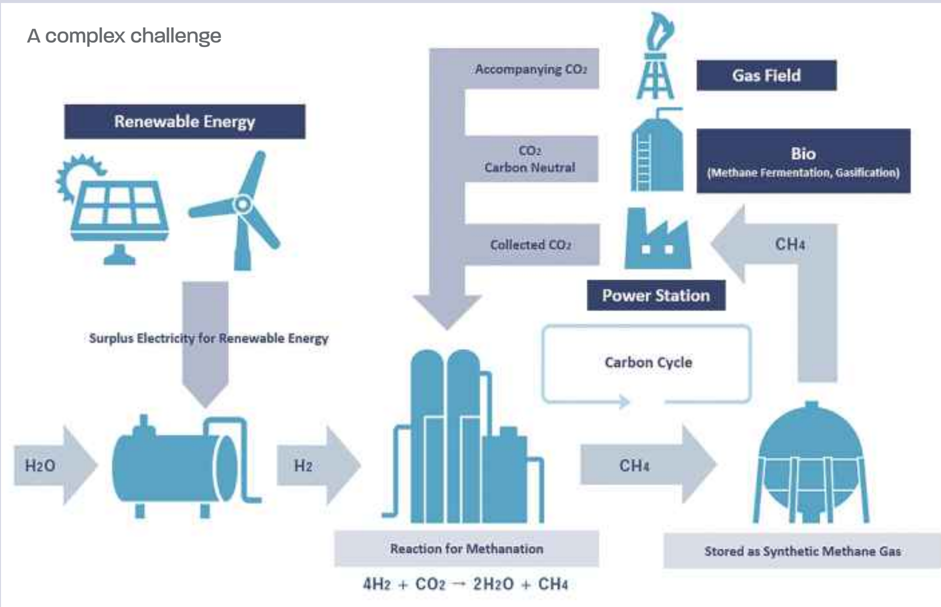
That PP initiative, featured in the last issue of *Seatrade Maritime Review*, will see members assessing the sustainability strategies of customers, as well as the climate-related status of their own loan books. And just in case any of the laggards think this is merely posturing on the part of shipping's financial institutions, they should think again. Asked recently what would happen to bank clients who failed to make the grade, one leading lender curtly responded: 'Well, ultimately, we'll split up.'

Beside the top-tier signatories from the PP club which, between them, account for \$100bn of shipping loans, the Getting to Zero Coalition has the support of a string of blue-chip names. These include ABS, Citi, Cargill, Euronav, Lloyd's Register, Maersk, Shell and Trafigura. Just a few days after its launch, Japan's NYK Line signed up.

One of the Coalition's strengths is its diversity. As well as financial institutions, shipowners and classification societies, leading ports including Antwerp, Rotterdam and Vancouver are in there. So too are machinery manufacturers such as MAN Energy Solutions and Wärtsilä, and renewable energy companies including Ørsted, Siemens Gamesa Renewable Energy and Vestas.

Major charterers – Anglo American, Cargill and Unilever – have also signed up. Insurers

Low- and zero-carbon fuel options



Carbon dioxide is by far the most important of the six greenhouse gases (GHG), accounting for 98% of shipping's GHG emissions in 2012, according to the Third IMO GHG Study of 2014. The work of the Getting to Zero Coalition will include all six GHGs, explained Tristan Smith of the UCL Energy Institute, as he explained definitions in the Coalition's Project Outline.

There are no carbon-free marine fuels available today on a well-to-wake basis. LNG and methanol are both hydrocarbons although both are considerably less damaging to the environment than conventional marine fuels. There is, however, scope for future marine fuels to be carbon-zero, or net-zero. Conversely, depending on their source and manufacturing process, the carbon footprint of new fuels could be considerably greater than the fossil fuels used in shipping today.

Fuel experts believe that ammonia has significant potential. A liquid at -33°C or 10 bar, it can be used today in an internal combustion engine, with minor modifications. It is already shipped and handled in large volumes by sea and other transport modes and can be produced sustainably from clean feedstocks. Its main disadvantage is its toxicity.

Others suggest that future marine fuel development should focus on hydrogen. With a boiling point of -252.9°C and a high energy density, hydrogen is not currently shipped by sea and, with significant storage and handling issues, would present substantial infrastructural challenges around the world. Most of the world's hydrogen is currently produced by steam methane reforming, using natural gas or coal, thereby generating more than ten times its volume of GHG.

However, hydrogen can also be produced by using electricity to split the atoms in water – electrolysis. The carbon intensity of this process depends on how the electricity is produced. If from wind, waves, hydro-power or another sustainable source, this hydrogen could be zero-carbon.

Similarly, batteries charged with renewable electricity are potentially zero-carbon, subject to their means of production and pre-installation transport. There are, however, relatively few sources of renewable electricity available globally today, and a step-change in technology is needed for batteries to become small enough in size to make them economically feasible for ocean shipping.

Net-zero fuels include biomass in which carbon emitted during combustion is approximately equivalent to that which is taken out of the atmosphere during its production. All carbon-emitting fuels can theoretically be made net-zero through the use of carbon capture and storage (CCS) or carbon capture and use (CCU).

are represented too – Skuld and Swiss Re are signatories – and so is global bunker supplier World Fuel Services.

The roadmap

The Coalition is under no illusions – 'many stars need to align for commercially viable ZEVs and an associated supply of zero-carbon energy sources to become a reality', it has stated. Four phases have been earmarked between now and 2030, defined as follows:

- **2019-20**: the establishment of a broad-based cross-industry coalition committed to ZEVs by 2030, supported by a shared knowledge base, the most promising fuel options and the first demonstration projects;

- **By end-2023**: the possibility of commercially viable ZEVs accepted by parties outside the Coalition; demonstrations of ships running safely on zero-carbon energy sources; confidence that production of such fuels can be scaled and produced at a price that is feasible; engagement of other supply-chain participants, including ports and finance institutions; new business models developed;

- **By end 2027**: policy environment required for deployment of ZEVs established, making commercial investment in such vessels bankable; demonstrations that deep-sea vessels can operate safely on new fuels, with the first trading corridors operational; technology advances and economies of scale result in new fuel prices coming down; business models and economic incentives for ZEVs spread and finance available;

- **By end 2030**: First commercially viable ZEVs in operation on key trade corridors; zero-carbon energy sources expanding, allowing supply to match growing demand; ZEVs begin to become the preferred option when ordering replacement tonnage.

The scale of the targets has not been underestimated by key participants. But there is also an air of anxious excitement about the challenges and opportunities faced by shipping, as a global hydrocarbon-based industry, over the next decade and beyond.

Charterer involvement

At the time of the Getting to Zero Coalition launch, senior executives of key participants had important messages. A key theme was an emphasis on industry-wide collaboration and liaison with other sectors facing similar changes in energy supply.

Jan Dielman, president of Cargill Ocean Transportation, said that a 'paradigm shift' is needed to reach the 2050 zero emissions goal. 'Our industry will need to align with key actors across the entire energy sector,' he said, adding that 'the Coalition is a great initiative to drive this large-scale collaboration and we are excited to see our industry get together to tackle these critical but complex issues.'

Meanwhile, Peter Whitcutt, a ceo at multinational miner Anglo American plc, said that the Coalition presents 'an exciting opportunity', promoting collaboration across a range of sectors in the maritime space and supporting the drive to decarbonise shipping.

Many see the increasing engagement of heavy-hitting charterers as a transformational development. Shipping's often adversarial relationship with its

customers makes changing business models tricky. And, of course, any change to business almost invariably comes down to dollars and cents, and who pays.

However, the signs of greater collaboration are already clear. Whilst no-one will go on the record so far, a number of major charterers are believed to be discussing their own set of GHG-related initiatives in a move that could be based on principles similar to those advocated by the Getting to Zero Coalition and the financial institutions which have signed up to the Poseidon Principles.

If this happens, climate initiatives will indeed be collaborative and inclusive, with all sectors focusing on the GHG challenge. ●

Other ways to cut carbon

In the short run, there are many ways to improve shipping's emissions performance, both on existing ships and in new designs. In fact, shipping economist and non-executive president of Clarkson Research, Dr Martin Stopford, believes that the IMO's targets can certainly be achieved through a combination of more discerning cargo carriage, operational improvements, economies of scale and, down the line, zero-carbon power plants.

On the first of these, Stopford explained recently that the relatively cheap cost of shipping bulk materials over long distances means that large volumes are shipped unnecessarily. Moreover, there is no measure of a cargo's carbon intensity – a Capesize cargo of iron ore from Brazil to China is significantly more carbon-intensive than a cargo shipped from Australia, for example.

Based on recent expansion in sea trade, today's 12bn tonnes could escalate to 30bn tonnes by 2050 but Stopford said he didn't think this would happen. He also pointed out that 40% of cargo shipped today is fossil fuel. Would that expand at the same rate, he asked. Again, he thought not. Larger ships and slower speeds – as some have been calling for at the IMO – could also reduce emissions, he suggested, notably on shorter routes.

Meanwhile, research carried out recently at SINTEF in Norway indicates that tweaking ship designs could have a significant impact. Work undertaken at the Trondheim research establishment by Dr Elizabeth Lindstad, chief scientist - energy and transport, has shown that a longer and less beamy 63,000dwt supramax bulk carrier, with a lower block coefficient than a shorter conventional design, would typically burn 13% less fuel, with corresponding emission reductions, compared with a conventional design. Replacing conventional propulsion with a hybrid LNG-fuelled set-up, she suggested, could cut emissions by roughly the same again (see also following article).

IMO 2020 and beyond

The new Global Sulphur Limit is just the first of a whole welter of regulations that will usher in new types of fuel and a 'new normal' of continuously changing standards of environmental compliance, as **Bob Jaques** reports.

With the IMO 2020 global sulphur limits poised to enter force on January 1, the shipping industry remains divided over several key issues on how best to embrace tightening environmental regulations.

On sulphur itself, strong arguments are being advanced for and against the benefits of exhaust gas cleaning systems or scrubbers, especially of the open-loop type, while the availability, quality and price of low sulphur fuels all remain unclear.

The two are clearly connected. Many ship operators have chosen to fit scrubbers – deemed by the IMO as 'equivalent' to burning low sulphur fuel – as a hedge against the anticipated higher prices of LSFO (low sulphur fuel oil) or MGO (marine gas oil), as well as to avoid the operational challenges of having to adopt new fuels, the vast majority favouring open-loop systems as the easiest and most cost-effective to fit and use.

But as a growing number of countries and port authorities choose to ban the discharge of scrubber wash water in their territories, and with the IMO now saying it will examine the science of what impact cumulative discharges at sea might have, scrubber installation is increasingly looking like a time-limited solution.

An analogous situation applies to the next big challenge after desulphurisation: decarbonisation.

At present the shipping industry is on course to meet the IMO's target of a 40% reduction in shipping's annual GHG emissions per unit of transport by 2030 compared to 2008 levels – although the 2050 ambition of at least halving shipping's total emissions (again versus 2008) and beyond that approaching zero by 2100, will require radical solutions not yet perfected.

According to figures presented at an ABS seminar earlier this year, the industry emitted 22.0 grams of CO_2 per tonne mile in 2008. Already by 2015 that figure had dropped to 15.2 grams, roughly a 30% reduction, well on its way to reaching the 2030 target of 13.2 grams.

The reduction to date has largely been the effect of slower steaming, introduced after the negative impacts of the financial crisis and huge tonnage overhang began making themselves felt on the industry, as well as other tweaks to ship designs and operational profiles.

Maersk Pelican fitted with Rotor Sails

For example, Maersk Tankers recently reported that the fitting of Flettner-type Rotor Sails supplied by Norsepower aboard its LR2 product tanker Maersk Pelican had resulted in 8.2% fuel savings.

Which brings us on to a second issue dividing the industry at present: whether to enforce mandatory speed limits – or reductions to the power of engines, adjudged by organisations like BIMCO and the Union of Greek Shipowners as amounting to the same thing – as a way to immediately curb GHG emissions and ensure the meeting of the 2030 target.

The question has already been debated at the IMO and failed to reach consensus, some countries arguing that slower speeds effectively leave them further away from their key import/export markets. While the variant proposal of a reduction in engine power – with a specific limit set for each different ship type – was still due to be debated as this issue went to press, it was thought likely to meet the same opposition.

But the proposal will still have its powerful backers, including an environmentally conscious France under President Macron and the influential Greek shipowners' lobby, as well as other countries and organisations alarmed by the growing evidence of climate change.

Also still on the agenda is the possible introduction of a 'carbon levy' on bunkers as a financial incentive or lower fuel burn and therefore emissions.

Speaking at the recent International Maritime Organization Symposium on IMO 2020 and Alternative Fuels, Dr Alexandra Ebbinghaus, maritime strategic project leader for Anglo-Dutch oil major Shell, said deployment 'as soon as possible' of low carbon fuels such as LNG (see following articles) and biofuels was still 'not going to be enough' to meet IMO's 2050 target.

Development of zero carbon fuels was needed, she said, and should be supported by introduction of a 'policy network' that includes market-based measures 'such as carbon trading or carbon taxes.' These would encourage alternative fuels development and create a level playing field for ship operators.

And then there is the third issue dividing industry opinion – whether use of LNG (Liquefied Natural Gas) as a marine fuel represents the best way forward for the industry. It certainly cuts SOx and other harmful emissions radically as the SEA\LNG coalition points out (see following article) but others argue that it nevertheless remains a fossil fuel and therefore only an 'interim' solution and of limited use in meeting IMO's low- or zero-carbon ambitions for shipping by 2050 and beyond.

However, even here some such as class society DNV GL counter that LNG-fuelled ships might later be adapted to burn biogas and later synthetic gas produced by renewable energy, thereby meeting zero-carbon goals.

In short, the shipping industry faces a very demanding agenda of change, with a whole host of different possible technical solutions to explore. Lubricants supplier Castrol recently warned that IMO 2020 wasn't a one-off regulatory hurdle to be cleared but that the industry faces a 'new normal' where 'continuous change in environmental compliance standards is driven by regulation, adding layers of technical complexity for owners and operators.' ●

BSM: preparing seafarers for LNG

BSM-managed LNG carrier

Bernhard Schulte Shipmanagement (BSM) prides itself on being 'the leading ship manager in the LNG space', with principal Bernhard Schulte having been in the sector as owners since 1979 and BSM as managers for more than a decade, according to ceo Ian Beveridge.

BSM at present has 16 LNG carriers under technical management and 22 under crew management, as well as managing two LNG-fuelled vessels: a 174,000cbm LNG carrier and the world's largest LNG bunkering vessel, the 75,000cbm Kairos (pictured overleaf).

In addition, Beveridge mentions a 'strong pipeline' of committed business', with some of BSM's customers having ordered tankers that will use LNG as fuel, as well as growing adoption of LNG as a fuel for cruiseships, a sector where the company is actively expanding.

Ian Beveridge

'We believe strongly in LNG,' he says, 'as it's widely available, cheap and a lot cleaner than other fossil fuels. We believe its use [as a marine fuel] will be a lot more prevalent.'

For this reason, BSM has decided to create an LNG Training Hub that will be coordinated from its Maritime Training Centre in Limassol, Cyprus, incorporating activities at its centres in Gdynia, Manila and Mumbai as well. Courses will provide training in LNG both as a cargo and as a fuel.

'Where the seafarers for LNG are going to come from is a hot topic at the moment,' says Beveridge, 'and we think there'll be a big bottleneck.'

Properly trained and qualified crew will be in great demand, he predicts, and many officers already sailing aboard gas carriers – of which BSM currently manages more than 100 – 'will wish to retrain as LNG officers.'

PHOTO: **COURTESY OF BSM (CYPRUS)**

LNG bunkering vessel Kairos

LNG: the way forward

The following article has been submitted by **Steve Esau**, gm of SEA\LNG, a multi-sector industry coalition formed to promote the advancement of LNG as a marine fuel.

The constant change that the industry is experiencing is now seen as the new normal in shipping. Among the chatter, no one knows what the shipping industry will look like in 2050. Formerly a far-flung challenge of the distant future, decarbonisation has now become a top consideration for those considering their capital expenditure in the coming years.

Despite many claims on the market, however, there remains no silver bullet to decarbonise the shipping industry – yet. Nobody has a crystal ball but what we can anticipate is that decarbonisation of shipping is likely to require a multiplicity of solutions, including digitalisation and improved logistics, increasingly efficient ships, hybridisation and the gradual substitution and blending of fossil fuels with biofuels and renewable fuels.

This is where liquefied natural gas (LNG) enters the equation. The evidence of independent study and real-world application proves that using today's technology, LNG can and currently does play a significant bridging role in shipping's wider decarbonisation process, while at the same time improving air quality by addressing the problem of harmful local emissions.

LNG far outperforms conventional marine fuels in terms of minimising local emissions and can significantly reduce Greenhouse Gas (GHG) emissions. In April, SEA\LNG released an independent study that revealed GHG reductions of up to 21% are achievable from LNG as a marine fuel, compared with current oil-based marine fuels over the entire life-cycle from Well-to-Wake (WtW).

This study also confirmed that emissions of other local pollutants, such as sulphur oxides (SOx) and particulate matter (PM), are close to zero when using LNG compared with current conventional oil-based marine fuels.

In addition to the GHG life-cycle study, SEA\LNG commissioned DNV GL to conduct a comprehensive study to assess the commercial and operational viability of alternative marine fuels in September. Based on existing academic and industry literature, the study evaluates how well six of the main alternative fuels (hydrogen, ammonia, methanol, LPG, biofuel, specifically Hydrotreated Vegetable Oil, and full battery-electric systems), perform compared to LNG and legacy HFO using a set of 11 key parameters.

The parameters which LNG scored the highest were in energy cost and commercial readiness. Compared to the six alternative fuels, LNG remained the best alternative when looking at toxicity, safety and offering a potential long-term pathway towards a zero-emissions shipping industry through bio and synthetic sources of LNG.

To further explore the relatively uncharted territory of renewable and synthetic LNG, SEA\LNG is undertaking further research into the feasibility of liquefied biomethane and synthetic methane for the marine sector, initially as a drop-in fuel and, longer term, as a core part of the marine energy transition, leveraging existing assets and infrastructure. The research aims to gauge the availability of these zero-carbon fuels on a global scale, their technological maturity and potential costs.

We continue to demonstrate that LNG offers a commercially viable long-term bridging solution to a zero-emissions shipping industry, with immediate local and GHG emissions benefits. LNG continues to be proven and available on the market already and its immediate impacts can be seen and continue to grow. Despite the noise in the industry, pragmatism must prevail when it comes to considerations around decarbonisation. In other words, in the absence of a safe, scalable and fully commercialised panacea solution, we must realise what we already have; and LNG as a marine fuel offers unrivalled potential for achieving shipping's short and long-term energy transition goals. ●

Seatrade Maritime Awards
Middle East, Indian Subcontinent & Africa

Returning: Sunday 6 December
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Celebrating regional maritime success

During a glittering awards ceremony on 22 September 2019, more than **600 of the shipping industry's regional personalities**, gathered in Dubai to celebrate an evening rewarding excellence across the industry.

The 16th Seatrade Maritime Awards Middle East, Indian Subcontinent & Africa were once again **held under the patronage of His Excellency Sultan Ahmed Bin Sulayem, Chairman of Ports, Customs and Free Zone Corporation and Chairman of Dubai Maritime City Authority (DMCA)** and played an integral role in **UAE Maritime Week.**

A highlight of the annual shipping calendar – this year's Awards attracted **over 120 entries from over 20 countries**, with **24 trophies presented on the night.**

The core categories encourage the pursuit of excellence in a range of areas, including safety & quality, green shipping and education and training; and the esteemed personality awards shone a spotlight on the individuals making significant industry contributions.

Chris Hayman, Chairman of Seatrade, who has attended all 16 awards thanked the many individuals in the room who have attended over the years and commented that with environmental issues high on today's maritime agenda, "This region is playing its full part in the process, and the Awards to be presented will clearly reflect that."

"The Seatrade Awards give pride to all seafarers and to the people who contribute to this industry"

Captain Abdulkareem Al Masabi, CEO, ADNOC Logistics & Services

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An exceptional list of winners were announced for 2019...

INTEGRATION OF WOMEN IN THE MARITIME SECTOR AWARD 2019

Winner:
H.E Eng. Hessa Al Malek, Marine Transport – Executive Director, Federal Transport Authority Land & Maritime

Announcer:
Shahab Al Jassmi, Director – Ports & Terminals, DP World

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INVESTMENT IN PEOPLE AWARD

Winner:
Bahri (Received by Hisham Al-Khadi, Chief Support Officer, Bahri Oil)

Announcer:
H.E. Salem Ali Al Zaabi, Director General, Federal Transport Authority – Land & Maritime

CONTRIBUTION TO THE DEVELOPMENT OF THE REGIONAL MARITIME CLUSTER AWARD

Winner:
DP World UAE Region (Received by Joost Kruijning, SVP & COO, Ports & Terminals Division, DP World UAE Region)

Announcer:
Mohammed Alfalasi, Waterways Manager, Dubai Maritime City Authority

Highly Commended:
Samsung Heavy Industries Nigeria Ltd

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GREEN SHIPPING AWARD

Winner:
Seacor Offshore Dubai LLC (Received by Mark Kachouh, Director Business Development, Seacor Marine)

Announcer:
Salem Marafi – Deputy Chief Executive Officer – Shipyard Operations, Heavy Engineering Industries & Shipbuilding CO. K.S.C (HEISCO)

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SAFETY AND QUALITY AWARD

Winner:
Drydocks World Dubai (Received by Capt. Rado Antolovic, CEO & Managing Director, DP World Maritime Services Division)

Announcer:
Andrew Williams, President – Maritime Group, Informa Markets

Highly Commended:
Arab Shipbuilding & Repair Yard Company (ASRY)

EDUCATION AND TRAINING AWARD

Winner:
Oman Ship Management Company S.A.O.C (Received by Ibrahim Al Nadhairi, Chief Operating Officer, Oman Ship Management Company S.A.O.C)

Announcer:
Ali Asad Ali, Senior Vice President, Human Capital & Support Services, ADNOC Logistics & Services

Highly Commended:
Kuwait Oil Tanker Company S.A.K.

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CORPORATE SOCIAL RESPONSIBILITY AWARD

Winner:
Essar Ports Ltd (Received by Capt. Sukdev Singh Bhamra, General Manager, Essar Shipping DMCC)

Announcer:
The Revd. Canon Andy Bowerman, Regional Director, Middle East and South Asia, The Mission to Seafarers

Highly Commended:
Abu Dhabi Ports – SAFEEN

Presented by

TECHNICAL INNOVATION AWARD

Winner:
Seacor Offshore Dubai LLC (Received by Mark Kachouh, Director Business Development, Seacor Marine)

Announcer:
Stephen Saywell, Commercial Director – Middle East and Africa, AkzoNobel

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MARITIME SUPPLY CHAIN & LOGISTICS AWARD

Winner:
LogiPoint (Received by Farooq Shaikh, CEO, LogiPoint)

Announcer:
Khalid Al Ali, Senior Manager – HSE & Corporate Compliance, Abu Dhabi Ports

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SHIPPING COMPANY OF THE YEAR

Winner:
Oman Ship Management Company S.A.O.C (Received by Ibrahim Al Nadhairi, Chief Operating Officer, Oman Ship Management Company S.A.O.C)

Announcer:
June Manoharan, Managing Director, Lukoil Marine Lubricants DMCC

Highly Commended: Bahri

Sponsored by

SHIPYARD OF THE YEAR

Winner:
Albwardy Damen (Received by Lars Seistrup, Managing Director, Albwardy Damen)

Announcer:
Ali Al Suwaidi, General Manager, Dubai Maritime City

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PORT & TERMINAL OPERATOR AWARD

Winner:
Abu Dhabi Ports (Received by Khalid Al Ali, Senior Manager – HSE & Corporate Compliance, Abu Dhabi Ports)

Announcer:
Suzanne Tiago, Portfolio Marketing Manager – TOC Events Worldwide, TOC Middle East

In Association with

SHIP AGENT AWARD

Winner:
Kanoo Shipping (Received by Jonathan Bygrave, CEO, Kanoo Shipping)

Announcer:
Bob Jaques, Editor, Seatade Maritime Review

MARITIME SERVICES AWARD

Winner:
Abu Dhabi Ports – SAFEEN (Received by Khalid Al Ali, Senior Manager – HSE & Corporate Compliance, Abu Dhabi Ports

Announcer:
Bob Jaques, Editor, Seatade Maritime Review

AFRICA MARITIME AWARD

Winner:
Association of African Maritime Administrations (AAMA) (Received by Nneka O. Obianyor, Chief Legal Officer, Nigerian Maritime Administration & Safety Agency (NIMASA), Emmanuel Alfred, Special Assistant to the Director-General/CEO, Nigerian Maritime Administration & Safety Agency (NIMASA) and Angela Safo-Kantanka, Deputy Director, Ghana Maritime Authority)

Announcer:
Jens O. Floe, Chief Executive Officer, Red Sea Gateway Terminal

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INDIAN SUBCONTINENT MARITIME AWARD

Winner:
Indian Ports Association (Received by Dr. Abhijit Singh, Executive Director, Indian Ports Association)

Announcer:
Khalid Al Ali, Senior Manager – HSE & Corporate Compliance, Abu Dhabi Ports

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DEAL OF THE YEAR

Winner:
HFW in support of Abu Dhabi Ports & Cosco Ports (Received by Tien Tai, Partner, HFW & Khalid Al Ali, Senior Manager – HSE & Corporate Compliance, Abu Dhabi Ports)

Announcer:
Grant Elrick, Seatrade Maritime Head of Sales, Informa Markets

BUSINESS ENABLER OF THE YEAR

Winner:
Dubai Maritime City (Received by Capt. Rado Antolovic, CEO & Managing Director, DP World – Maritime Services Division)

Announcer:
Emma Howell, Seatrade Head of Group Marketing Services & Maritime Marketing, Informa Markets

NEWCOMER OF THE YEAR 2019

Winner:
Al-Iraqia Shipping Services & Oil Trading (AISSOT) (Received by Mr. Dhanasekhar Durai, Director - Shipping)

Announcer:
Andrew Williams, President – Maritime Group, Informa Markets

PERSONALITY OF THE YEAR 2019

Winner:
Capt. Rado Antolovic, CEO & Managing Director, DP World – Maritime Services Division

Announcer:
Andrew Williams, President – Maritime Group, Informa Markets

OUTSTANDING ACHIEVEMENT AWARD 2019

Winner:
Capt. Abdulkareem Al Masabi, CEO, ADNOC Logistics & Services and Chairman, UAE Shipping Association

Announcer:
Capt. Rado Antolovic, CEO & Managing Director, DP World – Maritime Services Division

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LIFETIME ACHIEVEMENT AWARD 2019

Winner:
Bader Naser Al Khashti, Chairman, Kuwait Oil Tanker Company

Announcer:
Chris Peters, CEO, Tristar Shipping and Eships

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Thank you for joining us

We welcomed an audience comprised of 44% C-suite and Director-level with the remainder representing senior and middle-management.

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Abu Dhabi Terminals
ADIB
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Affinity
Akron
AkzoNobel
Al Jazeera
Al Masaood Medpool
Al Seer Marine
Albwardy Damen
Alfa Laval Singapore Pte. Ltd.
Al-Iraqia Shipping Services & Oil Trading (AISSOT)
Anwar Al Furat
APM Terminals
Arabia Holdings
ARC Ship Management
Archirodon
Arga Energy Consulting
Aries Marine & Engineering Services
Arka Marine
Arab Shipbuilding & Repair Yard Company (ASRY)
Atlantic Maritime Group FZE
Atlas Marine Shipping L.L.C
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Hanan Shipping
Hapag Lloyd
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HFW
HLC
Höegh Autoliner
Huawei
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Data-sharing future for logistics

Nick Savvides looks at the findings of a recent EU study into the importance of 'synchromodality' to maximise supply chain efficiencies.

Big data and the development of computing power has driven the logistics industry to greater levels of efficiency, and latest research financed by the European Union suggests that the best is yet to come.

Shared European Logistics Intelligent Information Space (SELIS) was a €17.7m three-year research project to create an open source logistics trade tool that finished its work this year, presenting its final report in Brussels in early October.

The project co-ordinator, Dr Takis Katsoulakos, also md of project management consultants Inlecom, told Seatrade that the original objective of the project was to promote innovation in the transport and logistics sector through data driven collaboration yielding economic and, more importantly, environmental benefits.

According to Katsoulakos the aim of SELIS was to use big data analytics to gain insights on how cargo moved and where the pinch points were, and that these insights would allow for collaboration between the stakeholders in the supply chain to find methods of improving efficiencies.

The project comprised 36 partners intent on creating a logistics platform that would be available to any company of any size with real-time availability of information. A series of 'living labs' were used to look at different areas where new models of collaboration would be needed.

Rob Zuidwijk from Erasmus University, a SELIS participant, pointed out that international logistics requires user information and supply chain visibility. There must be data exchanged between interested parties when a container arrives at the port, he said, since at the moment a box can be at the terminal for five to six days after arrival.

'Fast delivery of containers is to do with information, it can take several days to execute a loading plan at the moment,' said Zuidwijk. 'What is needed is a critical data exchange on the container's arrival, truck and rail availability and shortsea services, this information creates mutual benefits and brings transparency to the supply chain,'

Fellow SELIS participant Port of Rotterdam made the point that common terms like 'time of arrival' need to be standardised so all stakeholders know exactly what they mean and synchronise their activities, thereby improving efficiency and reducing congestion.

The port's senior business manager Donald Baan explained how several SELIS partners had used a living lab projects at the port to set up a prototype platform at that helped expedite cargo movement. Four companies - a deepsea container terminal operator, inland terminal operator, a forwarder and Erasmus University - mapped the import process in to get an overview of the information required, including who needed what data and when.

Subsequent analysis of the results showed that barge operators would call at multiple terminals thereby slowing down deliveries by around four days, which could be a problem for urgent cargo. A method was therefore introduced for identifying urgent cargo and pushing that out by road, while less urgent cargo was delivered by barge that would call at one terminal only, carrying bundled cargoes to fully utilise vessel capacity.

This more reliable barge system has resulted in a reduced lead times by up to three days, Baan said, as well as less truck journeys and therefore emissions.

'Intermodal transport can be reliable if communication between the stakeholders is organised effectively,' he concluded, suggesting that Port of Rotterdam would now work on perfecting the system before scaling it up in line with customer demand.

Katsoulakos believes that the physical internet will change the role of ports and inland terminals, which in the future will become smart hubs using data-sharing technology such as the SELIS system. 'We had hoped to make SELIS a plug-and-play application, an internet link and a service for collaboration between logistics players, we didn't really achieve this, we were close, but we need more research,' he admitted.

After that the next step for the technology will be for cargoes to be routed efficiently without the intervention of humans, he predicts, and then smart hubs will really come into their own. ●

Moving from air to sea

Seatrade's Americas editor Michele Labrut meets with leading Mexican entrepreneur **Fernando Chico Pardo**, who has transferred his innovative business skills from airports to seaports through his investment in SSA.

His office sparkles with modernity. In the entrance, an imposing sculpture by British/Mexican artist Leonora Carrington sits, rather surprisingly perhaps, next to a model gantry crane – a strange juxtaposition at first sight but one which shows two of Fernando Chico Pardo's passions in life: beautiful artworks and business.

The reproduction of the Post-Panamax crane is a reminder of his having acquired, in 2014, a minority share in Seattle-based Carrix Group, the parent company of SSA Marine that has a presence in more than 210 terminals and railway operations in America, Asia, New Zealand and South Africa. SSA Mexico operates the largest Mexican container terminal in Manzanillo and terminals in Lazaro Cardenas, Acapulco, Vera Cruz, Cozumel, Tuxpan and Progreso.

Chico Pardo is considered one of the most important businessmen in Mexico, according to Forbes Magazine. 'Being an entrepreneur is a talent you are born with,' he once wrote in the local media and nobody would deny his impressive track record of investing in companies that benefit the Mexican economy, society and environment.

'I am a firm believer that companies have a social responsibility,' he wrote in his Kellogg School of Management alumni profile of 2010. 'They have to make profits, of course, but... they should also help their employees, educate them and make them better people,' reads Pardo.

'I founded my first company at 27, Acciones Y Asesoria Bursatil, a brokerage firm with Carlos Slim at the Mexican Stock Exchange, which with time became Grupo Financiero Inbursa, he tells Seatrade Maritime Review. 'Since I always wanted to start something of my own, 23 years ago I became independent and created Promecap, a private equity fund with George Soros to acquire companies, improve them and gave them value-added.

'Soros and I parted but later, in 2004, I came across ASUR that owned airports in Mexico,' he continues. 'I bought it, developed it, gave it value-added and ASUR now owns 16 airports including one in Colombia and another in Puerto Rico.

'I take pride in managing businesses and I like to work,' he adds. 'Today Cancun airport, part of ASUR, is Mexico's second largest, moving over 25m passengers.'

In 2013, JP Morgan offered Chico Pardo the opportunity of becoming a stakeholder in the Carrix Group by buying Goldman Sachs' participation. He replied that he was interested 'if they let me add value and bring ideas,' he remembers, and he subsequently came in with a five-page-long-list of suggestions and improvements, joining the Smith-Hemingway families in the Group; since then hedge fund Blackstone has also become an investor.

The SSA Mexico ports had a lot of issues and the entrepreneur says he 'succeeded in solving problems with Lazaro Cardenas [where] we could finally start constructing a specialised automobile terminal.' The resulting Lazaro Cardenas TEA has proved great success, receiving 300,000 vehicles in 2018.

One of Chico Pardo's core beliefs is the importance of talking with the suppliers, and that has certainly paid off.

His help on development of the Tuxpan oil terminal has also proved key to SSA's venture, which he says he likes 'very much.' He is also assisting the port group develop a small tourist island where it operates a cruise terminal, improving customs and immigration facilities to make it more inviting for cruise guests to return.

'I feel good [with Carrix], it is a great team,' he says. One of his three sons works at SSA Mexico in charge of the automobile sector and the other two are in the hotel business. 'My sons help me a lot [in our businesses] and wanted to do something for Mexico,' he concludes. 'They have many projects in sight,' he adds – suggesting the family legacy of supporting its homeland will surely continue.

'Fernando is a great and outstanding partner to our business, always interested, engaged and supportive of our team and our activities,' says Carrix ceo Knud Stubkjaer. 'Wherever he can assist us in our efforts, he does so very readily and we are grateful for this support.' ●

Maritime Cyprus 2019 a multi-anniversary affair


Polys V Hajioannou


Capt. Eberhard Koch

This year's Maritime Cyprus marked the 30-year anniversary of the biennial event and was the first held since creation of a new Deputy Ministry of Shipping headed by Natasa Pilides.

The event again combined high-powered debate during the day with lavish social events at night, particularly as many companies based on the island also celebrated anniversaries this year, including Columbia Ship Management (40th), Interorient (40th), Intership Navigation (30th), and Aphentrica Marine Insurance Brokers (25th), as well as umbrella body Cyprus Shipping Chamber (30th)

The event kicked off with a lavish Welcome Reception attended by President of the Republic of Cyprus Nicos Anastasiades, who presented this year's Maritime Cyprus Award to Polys V Hajioannou's Safe Bulkers, a relative new arrival on the island with some 40 vessels in its fleet of bulkers flying the Cyprus flag. Other VIPs attending the event included IMO secretary-general Kitack Lim, International Chamber of Shipping chairman Esben Poulsson and BIMCO president Sadan Kaptanoglu.

During the conference Hajioannou staunchly defended Safe Bulkers' 2018 decision to fit most of its fleet with scrubbers, adding the precision that the company already has 11 systems in successful operation, achieving average SOx emission levels equivalent to 0.025% sulphur level fuel, one-quarter the limit of ECAs and one-twentieth that of the oceans.

But others remain unimpressed by the environmental credentials of these exhaust gas cleaning systems.

Capt. Eberhard Koch, chairman and ceo of Cyprus-based Österreichischer Lloyd, told Seatrade Maritime Review that he regarded scrubbers as 'an unacceptable loophole. We have already had the first case of piping corroded by this toxic material we're dumping in the sea. If scrubbers are a solution to reducing airborne sulphur emissions, they're only an intermediate one, not long-term.'

And regarding the imminent implementation of IMO 2020 he claimed: 'we as shipowners are ready but we don't know what we are getting and where we are getting it,' which effectively represents a breach of the safe passage planning requirements of the ISM (International Safety Management) Code, he contended.

Similar points were made from the conference floor by Philippos Philis, chairman of the CSC and newly elected vice president of the European Community Shipowners' Associations (ECSA), and Capt. Eugen Adami of Mastermind Shipping, a former CSC chairman.

Pointing to the potential risks that untried fuels posed for seafarers, Philis called for a three-month phase-in period for monitoring the performance of the fuels without any penalties for non-compliance with IMO 2020, while Adami stressed it was essential for ships' crews to receive notification of the exact specifications of new fuels being delivered onboard.

LISW19: Decarbonisation and digitalisation


Live link-up to Columbia's Performance Optimisation Control Room

Decarbonisation was the overriding theme of this year's London International Shipping Week in September, when a bewildering array of more than 200 events attracted some 20,000 visitors from 150 different countries, a 30% increase over the last event two years ago, according to the organisers.

The theme chimed with the UK's own attempts to position itself as a leader in decarbonisation, having already been the first major economy to enshrine carbon reduction targets in legislation as far back as 2008, Minister for Maritime Nusrat Ghani reminded audiences at various LISW events.

This year the UK has already launched a Clean Maritime Plan and Green Financing Initiative, and Minister for Maritime Nusrat Ghani announced during LISW that Glasgow has been chosen as host city for next year's United Nations climate change summit (COP26) in November 2020.

Digitalisation is another area where the UK is keen to press its credentials, and LISW itself pulled off something of high-tech feat when Columbia Ship Management hosted a seminar featuring a real-time video link to the Performance Optimisation Control Room in Cyprus it has recently installed at its HQ in Cyprus in association with local connectivity and communications specialist Tototheo Maritime.

'Digitalisation is only a means to an end, not an end in itself,' CSM chief executive Mark O'Neil has gone on record as saying, which for CSM means optimising performance both for its clients' ships and for its own operations.

UAE Maritime Week to feature at Expo 2020 Dubai


Opening ceremony

This year's UAE Maritime Week took place in Dubai in late September under the patronage of His Highness Sheikh Hamdan Bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai.

The event kicked off with the Dubai Maritime Agenda conference organised by the Dubai Maritime City Authority at the Madinat Jumeirah complex, main venue for the week's events.

Dr Abdullah bin Mohammed Belhaif Al Nuaimi, Minister of Infrastructure Development & Chairman, Federal Transport Authority (FTA) – Land and Maritime, opened the conference, by reaffirming the UAE's commitment to playing a leading role in development of the global maritime industry.

The following day saw the opening of the two-day Seatrade Offshore Marine and Workboats Middle East exhibition and conference, officially inaugurated by DMCA executive director Amer Ali.

'Dubai's maritime sector has been steadfastly working to achieve great heights and bring in new developments that can contribute to innovation and growth of the sector and boost the Emirate's ranking among the world's leading maritime capitals,' Ali said in his opening address.

Within moments of the exhibition opening, an official MoU was signed between Schottel and Albwardy Damen for a full propulsion package for a new type of vessel – the Damen Multibuster 8020 (DMB 8020) designed with extreme shallow draft for applications such as pipe laying and cable laying works, the upgrading, installation and decommissioning of platforms as well as well stimulation projects.


Visiting cadets attend UAESA signing of ICS membership

Also taking place during UAE Maritime Week was the 16th Seatrade Maritime Awards Middle East, Indian Subcontinent & Africa gala dinner, where Bader Naser Al Khashti, chairman of Kuwait Oil Tanker Company was bestowed the Lifetime Achievement Award. Among other winners were DP World – Maritime Services Division ceo & md Capt. Rado Antolovic, who won Personality of the Year, and Eng. Hessa Al Malek of the FTA, who received the Integration of Women in the Maritime Sector Award (see also pp.23-26).

Additional events during the week included the two-day Seatrade ShipTech Middle East conference, which had plenty to discuss given the impending introduction of the IMO 2020 global sulphur cap on January 1; the 2nd Dubai Marine Insurance Conference, held on the QE2 and sponsored by Emirates Maritime Arbitration Centre (EMAC); and a special signing ceremony to mark the UAE Shipping Association becoming a member of the International Chamber of Shipping.

Next year's UAE Maritime Week is to be hosted by DMCA at the Expo 2020 Dubai site from December 6 to 10. This is the first time that the global Expo event is being held in the Middle East and a record 192 countries are taking part, announced Najeeb Al Ali, executive director of Expo 2020.

Anchor events of the week will include the Seatrade Maritime Middle East exhibition and conference, TOC Middle East, and Seatrade Shiptech Middle East, all taking place at the new Dubai Exhibition Centre being built on the Expo site.

Undimmed as global business centre

Seatrade writers **Sandra Tsui** and **Marcus Hand** take the temperature of Hong Kong's maritime business community at a time of almost unprecedented political turbulence for the Special Administrative Region.

A key shipping hub and leading global business city but in recent months most international news coverage has focused on images of political protests and rioting.

However, speaking to senior shipping executives in Hong Kong Seatrade Maritime Review found the political situation has had no real impact on day-to-day work or the city's long term attraction as a location for business.

One of Hong Kong's best known shipping personalities Tim Huxley, chairman of Mandarin Shipping, expressed his disappointment at how the situation is being portrayed. 'As a resident in Hong Kong for three decades, of course it's heart-breaking to see the negative perception that is conveyed by the media around the world, because this is still one of the safest cities in the world. It is still one of the best places to do business. It has still got the best workforce you will find anywhere in Asia.

'As I said on Radio Hong Kong, it is inconceivable that I or my company would consider leaving Hong Kong.'

On the impact of the demonstrations Bjorn Hojgaard, ceo of Hong Kong headquartered Anglo-Eastern, commented, 'The business is global of nature, so the effects we feel has more to do with do with disruption to local public transport and the occasional flight delay but overall it is business as usual.'

Angad Banga, coo of The Caravel Group, pointed out that the current emergence of political tensions is in no way unique to the SAR. 'Hong Kong is experiencing its challenges right now, a lot of countries are, a lot of political systems are. But I think we will prevail in Hong Kong. We will come out of this stronger, like every time something has happened.'

In common with others running businesses in Hong Kong Banga stressed the advantages and attractions of being based in the city.

'All our businesses are headquartered in Hong Kong and we have no plans to change any of that for the foreseeable future. Great infrastructure, great access to financial market, talent is available, innovation in technology is happening here, and I think the potential of what the Greater Bay Area brings is tremendous. I am very bullish Hong Kong for what Hong Kong by itself offers, but also I think the prospect of the Greater Bay Area is really unique.'

These advantages as a location for doing business were highlighted by other members of Hong Kong's vibrant ship management community.

Capt. Firoze Mirza, md of Bernhard Shulte Shipmanagement (Hong Kong) Limited Partnership, commented: 'First of all, HK is still the freest economy in the world. Then, we have the advantage of a highly-skilled workforce. We have the advantage of a supportive government especially its regulation system. We don't want government holding our hands, we want government to give a proper rule-based system and then leave everybody alone.

'For ship management, a particular thing is technical manpower,' he continues. Many types of technical crew 'are not available in Hong Kong and we have to bring them in from elsewhere. The immigration department has generally been very cooperative in this, and this is one of the main reasons of the success of the ship management industry in Hong Kong.'

Martin Peter Henry, md of Tamar Ship Management, notes the strong sense of unity in the shipping sector. 'We are a good tight shipping community here, really good team. It never feels like competitors, it feels like we are all working and sailing the same way.

'As far as taxes go, it's a good place for companies to position,' he adds. 'And logistically, it's a great place too. We have got a lot of Chinese crew, we hold seminars there twice a year, we are often in China. And we have a small office in the Philippines, the flight is very quick - it's not quick once you get to Manila.

Such factors are 'enticing people to come and work here from the outside,' he concludes. 'People are still interested to live and work in Hong Kong.'

Jack Hsu,
HKSOA chairman

HKSOA affirms its support for IMO goals

The Hong Kong Shipowners Association (HKSOA), which celebrated its 60th anniversary at the end of last year, has long been known for its active engagement in international regulatory matters, never afraid to make its voice heard particularly in support of environmental issues.

It therefore came as no surprise that the HKSOA was quick to come out with a public statement on the decisions of the 74th session of the International Maritime Organization's Marine Environment Protection Committee (MEPC74) concerning the IMO's 2020 global sulphur cap.

'As the new regulatory regime will take effect on 1 January 2020, we are pleased to see that most of the related issues have been addressed, although there are still some 'loose ends' to be dealt with,' said HKSOA chairman Jack Hsu, also md of Oak Maritime (Hong Kong).

'It is most important to ensure a level playing field for all, while the shipping industry is transitioning to cleaner fuel.'

The HKSOA had previously voiced concerns about the cost of compliant fuels and several issues related to safety and fuel compliance, meeting with the Union of Greek Shipowners ahead of MEPC74 to share views. 'It is important for two major shipowners associations from Europe and Asia to cooperate on achieving common goals which constitute major challenges for our industry going forward,' Hsu said at the time.

MEPC74 subsequently adopted the '2019 Guidelines for consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI' and a circular entitled 'Guidance for Port State Control on contingency measures for addressing non-compliant fuel oil'. It also endorsed another circular providing guidance for PSC in the event of component failure on, or inadequate performance by, Exhaust Gas Cleaning Systems (EGCSs) or scrubbers.

In addition, IMO committee accepted a recommendation by the EU 28 Member States and European Commission to begin a new work programme on the evaluation and harmonisation of rules and guidance on the discharges of scrubbers, in view of what it described as the 'contradictions and uncertainties' surrounding the issue.

Debate is raging in scientific circles and the popular press over the net environmental impact of scrubbers, and China has been one of the first and most high-profile countries to ban the discharge of wash water from open-loop scrubbers into its inland seas and coastal waters.

However, after MEPC74 Hsu welcomed the fact that the IMO had offered 'useful, pragmatic guidance for ships electing to install scrubbers. This is a good sign, especially as quite a number of ship operators have already invested heavily in the system,' he said.

With regard to the long-term target of at least halving shipping's total GHG (greenhouse gas) emissions by 2050 compared to 2008 levels, the HKSOA believes that 'safe low carbon or fossil-free fuels as well as new breakthrough propulsion technologies properly tested and suitable for vessels spending long periods at sea are required on a global scale for international shipping in order for the new environmental rules to be effective and sustainable without distorting competition.

'These new fuels and technologies will have to be provided through massive investment in research and development involving all necessary stakeholders,' the association adds, and it has joined its voice to those of others in the shipping industry calling for the IMO to play 'a more proactive, leading role in the advancement of this R&D.'

As of 1 December 2018, HKSOA members operated a total pf 2,187 ships totalling 182.4m dwt and 113.4m gt.

Separately, former HKSOA md Arthur Bowring now has a new role in the local maritime cluster spearheading the Hong Kong Maritime Arbitration Group (HKMAG), set up to try and attract more dispute resolution business to 'Asia's world city'.

OOCL invests further in green technology

Celebrating its 50th anniversary this year, OOCL hosted a special celebration when it welcomed the maiden call of the OOCL Hong Kong to her namesake port in July.

With a capacity of 21,413teu, the vessel is one of the liner company's series of G-Class ultra large container vessels that were the largest in the world when first launched in 2017.

'Containerships like the OOCL Hong Kong are important ambassadors of world trade, and as a home carrier, we are very proud to have this vessel carry the name of Hong Kong, flying the flag of Hong Kong, and continue serving the industries of Hong Kong,' the company said in a statement.

Andy Tung, co-ceo of OOCL hosted the welcome ceremony and noted that it was a true 'milestone event' since the last time the line welcomed a vessel with the same name in Hong Kong was 25 years ago. Vessel size has more than quadrupled over the intervening quarter-century, he pointed out.

'This maiden call has special meaning to not only the people at OOCL, but to many citizens living here who may see the vessel as the pride of Hong Kong,' he added.

Besides their sheer size, measuring some 400mtr in length, the G-Class vessels are highly energy efficient, exceeding IMO EEDI (Energy Efficiency Design Index) baseline requirements by some 48%, according to the company. Green investment accounts for 24% of total ship cost, it adds, with advanced environmental features including LNG Ready Certificate, SAVER Stator energy-saving propeller, space reserved for Selective catalytic Reduction and Exhaust gas Recirculation, EN-SAVER (Energy Management System) with Integrated Optimization Solution, and Advanced Ship Performance Evaluation.

Such green vessel design combined with use of renewable energy at its onshore sites, training of staff in environmental protection and encouragement of employees to take part in environmental-related activities all helped OOCL win the Green Shipping category at the 12th Seatrade Maritime Awards Asia held at Hong Kong's InterContinental Hotel in Kowloon this June.

With more than 380 offices in over 80 countries/regions, OOCL also prides itself on being an industry leader in the use of information technology and e-commerce to manage the entire cargo process.

In particular, the company has just introduced what it terms a significant upgrade to its MyOOCLReefer (MOR) service first launched in 2011, which now uses latest technologies in areas such as Artificial Intelligence (AI), Internet of Things (IoT), mobile and telematic devices to enable better visibility and predictability of carriage for refrigerated box cargoes.

Hong Kong Seaport Alliance awaits regulatory approval

In a bid to raise efficiency and save costs in the city's Kwai Tsing port, four terminal operators have combined to form the Hong Kong Seaport Alliance (HKSPA), which started operation in April ahead of regulatory approval by the Competition Commission.

The alliance consists of four Hong Kong container terminal operators including COSCO-HIT Terminals (CHT), Hong Kong International Terminals (HIT), Asia Container Terminals (ACT), and Modern Terminals Limited (MTL).

CHT, HIT and ACT – in all of which Hutchison Port Holdings has interests – own 16 berths while HPH's main competitor MTL owns seven berths, giving the alliance control of 23 berths out of a total of 24 berths in Hong Kong.

'The seaport alliance is very important for Hong Kong,' said Gerry Yim, ceo of Hutchison Port Holdings Trust (HPHT). 'We hope that by increasing our overall efficiency, we can control physical costs by being able to mix and match assets and berthing windows a lot better to minimise downtime and maximise productive time of the berths.'

Yim said initial cooperation amongst the four alliance members would include moving sister shipping lines' services from one terminal to another to create better synergies. For example, with OOCL now under COSCO, the OOCL cargoes operated by MTL at one end will be gradually moved over to the CHT site at the other end of the port.

'Once you start moving shipping lines from one area to another that is more logical for them, immediately they will see the benefits in terms of productivity and cost savings,' Yim explained. 'By having this better efficiency and flexibility, we hope shipping lines will find Hong Kong to be a good transhipment hub to do their businesses.'

In this way it is hoped Port of Hong Kong might be able to stem its decline in container throughput, which has fallen from 22.23m teu in 2014 to 19.6m teu in 2018, causing the port to drop from fourth largest box port in the world to seventh over that period.

Speaking on the occasion of the maiden call of the OOCL Hong Kong at the HKSPA's facilities at Terminal 8 in July (see also previous article), CHT md Lawrence Shum highlighted that the combined facilities of HKPSA can handle up to eight mega vessels simultaneously which provides the big container shipping alliances with the capacity and flexibility to include Hong Kong in their network.

The inclusion of Hong Kong as a port of call by the 21,413teu OOCL Hong Kong operating under the Ocean Alliance's Asia-North Europe service is a reaffirmation of the city's status as an international shipping hub and key gateway to China, HKPSA pointed out.

'Hong Kong, despite being small in size, has been in the league of the world's top ten ports for the past 30 years or so,' said Angela Lee, commissioner for maritime and port development and deputy secretary for transport and housing of Hong Kong, on the same occasion.

'Coupled with our sound fundamentals built over the years, including our free port status, strong international connectivity, trusted common law system, and a level playing field for business, I am confident that our port will be able to further leverage on new opportunities presented by the Greater Bay Area Development, the Belt and Road Initiative and the New Land-Sea Corridor, and continue to thrive as a regional transhipment hub.'

Wah Kwong expands into Greater Bay Area

New chairman Hing Chao

Hong Kong Shipowner Wah Kwong Maritime Transport Holdings is planning to launch a branch office in Shenzhen to tap into the many opportunities the Greater Bay Area has to offer.

The new office will most likely be in Qianhai service industry cooperation zone and may be launched as soon as by the end of this year, chairman Hing Chao told Seatrade Maritime Review.

Hing Chao, son of the late George Chao, has been at the helm at Wah Kwong since the beginning of September 2019 when he took over chairman.

'The Greater Bay Area holds the future in many respects, in particular for Hong Kong as a maritime centre,' said Chao.

The Shenzhen office is expected to take up part of the company's ship management function and Chao expects half the firm's fleet will be managed from the Shenzhen office in three to four years.

Wah Kwong has around 38 ships in its fleet after recently taking delivery of the 61,000dwt ultramax bulker Great Venture with CMB leasing. Great Spirit, another ultramax being built at Dalian COSCO KHI, is expected to be delivered soon.

Chao expects the company's fleet size to expand to 40 ships by the second quarter of 2020 with half of the vessels owned by Wah Kwong itself; growing to 60 ships with one-third of them owned by Wah Kwong in around 2022.

Meanwhile, two 82,000dwt kamsarmax bulk carriers are scheduled for delivery in the first half of 2020 and two VLCCs are expected to join the firm's fleet by 2021.

Wah Kwong has worked very closely with Chinese leasing companies in recently years. Chao explained that financial leasing companies in China have become important shipowners with their own sizeable fleets. Sometimes, leasing companies would lease their ships to Wah Kwong which has taken a charterer's role. Wah Kwong also provides newbuilding supervision, ship and operational management services to leasing companies.

Wah Kwong has also started to diversify into asset management. 'We are still predominately a shipowning company,' said Chao, who explained that the asset management business has helped the company build relationships with more yards and negotiate better terms with business partners.

PHOTO: GULF OIL MARINE/WAH KWONG

Half of fleet to be managed from Shenzhen

TCC celebrates importance of enduring relationships

KHK Empress, a 2019-built VLCC on five-year time charter to BP

‘We are proud of our long-term relationships with a number of close partners, both in Japan and other regions’

Tai Chong Cheang (TCC) Group is expected to take delivery of its latest newbuilding, a capesize bulk carrier owned in a joint venture with “K”Line of Japan, from Imabari Shipbuilding in Q2 next year.

Ordered in 2014 when the Hong Kong-based shipowner was keen to mark its 50 years’ business partnership with the Japanese company, the 182,200dwt vessel will be managed by TCC.

Long-term relationships with charterers and relatively long/medium term time charters are the cornerstone of TCC’s strategy and has served the century-old shipping firm well, explains TCC’s group chief corporate officer Gary Cheung.

‘We are quite proud of our long-term relationships with a number of close partners, both in Japan and other regions,’ he says. ‘We have been working together and building good friendships over time, some more than 50 years.’

The group is presently operating nine bulk carriers and seven tankers, which are all on time charters at the moment. The group likes to keep a portfolio of long-, medium- and short-term charters in order to maintain a stable revenue while remaining close to the market.

Young fleet

TCC vessels are relatively young with only one tanker and one bulker being over 10 years old. The company has taken delivery of 12 vessels since 2014 in a fleet replacement effort that is now almost complete. The oldest bulker in the fleet was retained to meet the requirements of the charterer, while oldest tanker KHK Vision was the company’s first VLCC delivered in 2007.

Looking at the dry bulk market, Cheung notes there has been some improvement this year with capesize rates reaching around $30,000 a day at their height although some believe that this may be related to the disruption to the market because of the transition to compliance with IMO 2020 regulations, some vessels being taken out of the market to have a scrubber fitted, for example.

TCC has some ships on time charters with rates linked to the market rate. With a relatively young fleet and a philosophy of ensuring high standards by retaining in-house ship management, the group has every reason to be looking forward to a successful next 100 years. ●

Caravel Group prepares for digital future

Harry and Angad Banga

After five years of consecutive strong growth, the Caravel Group is now putting huge effort into digitalisation and plans to continue the initiative for the next couple of years.

Angad Banga, chief operating officer of The Caravel Group, tells Seatrade Maritime Review that the group has set up a technology team, which operates more like a start-up. It has launched two ship management applications so far with a third product in the pipeline.

The first application, called Sail with Fleet, is for seafarers to apply for a job. The second application, SafeView, could revolutionise the way in which inspections and audits are carried out on a ship, believes Banga, with everything noted down on a tablet and synced up seamlessly with the cloud. Data collected in the process can be used for analytics, machine learning, maintenance and so forth, he says.

The third project, expected to be released in the next nine months, is designed to aid procurement at a ship level and inventory management.

'It's a really interesting time to think about where we believe Fleet Management has been perhaps the leader in technology for the better part of the last 15 years,' says Banga. 'We have this software called PARIS (Planning And Reporting Infrastructure for Ship) that has won all kinds of awards, we still think it's cutting edge, but we are basically taking it to a whole new level.' He categorically dismisses past rumours that Fleet was up for sale.

The Caravel Group, parent of shipmanager Fleet Management Ltd, currently owns two kamsarmax vessels and has around 30 to 40 vessels on voyage and short-term charters. The company moves about 10m tonnes of volumes per year, about 70% third party and 30% in-house, according to Banga.

Apart from maritime and commodities, The Caravel Group has invested in Young Master Brewery, a craft brewery based in Hong Kong, and India's largest e-commerce beauty products platform Nykaa as part of its asset management business which is bigger than all the firm's other businesses combined. The major part of its asset management business is hedge fund which is public equity and credit.

Revenue of the group's operating businesses – which include maritime business, ship management, shipowning, ship operating and commodities, but excluding asset management – grew to $2.25bn in 2018, from $2.17bn in the previous year, according to Banga.

Meanwhile, Fleet Management is celebrating its 25th anniversary with events in Cyprus, Japan, Singapore and Hong Kong – with those who would like to taste the award-winning products of Young Master Brewery welcome to do so at one of the parties.

Fleet's managing director Kishore Rajvanshy was bestowed the Lifetime Achievement Award at the 12th Seatrade Maritime Awards Asia held at Hong Kong's InterContinental Hotel in Kowloon this June. ●

Hong Kong Registry to set up regional desks overseas

The Hong Kong Shipping Registry (HKSR) is sending marine officers to set up regional desks in London, Shanghai and Singapore by March 2020 as the first phase of an initiative to provide speedier support to shipowners, according to InvestHK's head of Transport & Industrial, Benjamin Wong.

Wong explained to Seatrade Maritime Review that the registry currently has one marine officer in London who is mainly working on IMO matters. The new regional desks will provide services such as ship registration, ship inspections, as well as respond to Port State inspection and attend to other emergency situations.

Looking further ahead Toronto and San Francisco will be the next destinations to have regional desks, he added.

Last year, the city's government said in its policy address that it would establish a special tax regime for ship leasing business, similar to that for aircraft leasing which has been in place since July 2017. A working group was set up earlier this year which has already completed its submission to the government.

One of the advantages of flying Hong Kong flag is that shipowners can utilise the strong financial platform of the city, Wong added. He mentioned some Chinese leasing companies have set up SPVs (special purpose vehicles) in Hong Kong to hold their shipping assets even though they might not have a physical presence in the city.

Benjamin Wong

'The tax regime for leasing is to attract them to have a physical presence also, so they could utilise the whole financial platform for activities such as fund raising and asset-based security,' Wong said.

As for the proposal of providing 50% profit tax concessions for marine insurance and the underwriting of specialty risks mentioned in the city's 2019-2020 budget, details are still being hammered out, according to Wong, with further details expected to be released shortly.

Meanwhile, in early June the HKSR announced that it had passed the 128m gt mark, consolidating its position as the world's fourth largest flag.

Clarksons Platou stays optimistic on dry bulk

The health of the dry bulk market is a key concern for Hong Kong's shipping community, and after a bad start to the year it has rebounded to healthy levels which look set to continue.

Clarksons Platou Asia's md Martin P Rowe, expects the dry cargo market to stay robust throughout Q4 and into Q1, possibly Q2, next year.

Sitting in the company's HK office, which mostly handles vessel sale & purchase but also has a dry cargo desk, Rowe explains that the recovery of the dry bulk market this year has been a result of both demand-side and supply-side factors.

On the supply side, one factor has been that many of the larger dry bulk vessels have been taken out of the market for retrofitting sulphur scrubbers to meet the IMO 2020 regulation.


Martin Rowe

'Based on data we received from shipyards we anticipated the average time to retrofit a sulphur scrubber on a large bulk carrier or large tanker as approximately 30 days,' he says, 'but it turns out that the average is longer than that, having gone up to 37 days according to our colleagues at Clarksons Research.'

The prolonged installation process has effectively reduced the amount of tonnage available to carry cargo and led to a significant upswing in dry cargo freight rates for larger vessels, he continues. While finding it difficult to forecast beyond Q2 2020, he remains positive about dry bulk in the short and medium term.

'Longer term is very hard to say,' he cautions. 'Certainly lots of newbuilding ships will be delivering in the later part of next year, but having said that, there is still plenty of trading of raw materials which is growing. Coal and iron ore continue to be growth markets, a bit more than previously, and as a result of that we don't foresee any collapse in dry bulk rates.'

Mandarin sees improving charter rates for feeder boxships

Hong Kong shipowner Mandarin Shipping is seeing a pick-up in the charter market for feeder container vessels after a rather tough beginning of the year.

'We have been seeing an improvement in rates when we come to fix out,' Tim Huxley, chairman of Mandarin Shipping, told Seatrade Maritime Review. 'On the supply side, there hasn't been a rush to newbuilding which is always positive.'

Huxley added that higher trade volumes have been observed in the region, which is effectively the Belt and Road area including Bangladesh, Cambodia, Thailand, Vietnam and southern China. The relocation of some garment manufacturing from China to Bangladesh has also had a positive impact on Mandarin's business.

Raising capital nowadays remains challenging but not impossible, he continued. A lot of the traditional banks have either moved out of the market or are requesting longer term charters which aren't really a feature of the feeder container market. While private equity is still available, the amount is much smaller than in the past because a lot of people have got 'badly burnt', he noted.


Tim Huxley

However, a company that has built up a solid platform and has a good reputation should still be able to find finance for the right project, according to Huxley. Besides traditional shipping banks, there are some smaller boutique banks that are still interested in shipping, plus companies may need to blend private equity with traditional debt finance.

HKTDC promotes Belt and Road opportunities

The Hong Kong Trade Development Council (HKTDC) is a statutory body established in 1966 to promote, assist and develop Hong Kong's trade. With 50 offices globally, including 13 in Mainland China, it promotes the Special Administrative Region (SAR) as a two-way global investment and business hub, organising international exhibitions, conferences and business missions to create business opportunities for companies, particularly SMEs, in the mainland and international markets.

The HKTDC says its 'mission is to create opportunities for Hong Kong companies,' delivering value by promoting trade in goods and services, while connecting the world's small-and medium-sized enterprises (SMEs) through Hong Kong's business platform.

The Belt and Road Initiative (BRI) is an area of particular focus, with HKTDC seeking to position the city as an ideal commercial platform to facilitate involvement. It points out that as a logistics and maritime services hub as well as a regional trading centre, 'Hong Kong can be a trade and logistics integrator for cooperation in road, rail, aviation and maritime transport among Belt and Road countries by providing support services such as research and management advisory to development projects.'

The city's geographic position and status as a world-class finance and business centre make Hong Kong 'better positioned than anywhere else in the world to help you on your Belt and Road journey,' it claims. 'Knowledgeable, experienced and well-connected, Hong Kong has a unique combination of advantages to partner with investors, intermediaries and project owners worldwide to take advantage of Belt and Road opportunities.'

For example, HKTDC relates how Hong Kong-based electronic engineering company Computime's ceo Dr King Owyang believes that smart control devices and IoT solutions will determine success for the future – as well as underline Hong Kong's role as a smart city. Owyang expects the company 'will take a lead role in the Greater Bay Area plan for new IoT solutions and develop opportunities in Eastern Europe and Southeast Asia under the BRI,' it reports.

Then there is architectural design, planning and engineering consultancy Arup, which has its East Asia headquarters in Hong Kong with signature projects like the Hong Kong-Zhuhai-Macao Bridge. Arup's East Asia Region chairman Michael Kwok believes it is 'specific social and economic outcomes' rather than the sheer number of projects that is making the BRI a success, details the HKTDC, with the SAR's 'openness and pragmatism as well as its technology adoption' likely to prove 'vital' for Belt and Road development, according to Kwok.

Anglo-Eastern committed to the environment

One of the world's largest third party ship managers Anglo-Eastern Shipmanagement is making a strong commitment to reaching shipping's environment and sustainability goals.

Anglo-Eastern is a founding member of the Getting to Zero Coalition an alliance of over 80 private and public entities in the industry that have come together to drive the decarbonisation of shipping with the self-declared 'moon-shot ambition' of getting commercially viable deep-sea zero-emission vessels powered by zero-emission fuels into operation by 2030 (see also cover story).

'Shaping a better maritime future' is not just a tagline,' says ceo Capt. Bjorn Hojgaard about his company's participation in the coalition. 'At Anglo-Eastern it's what drives us to do what we do as seafarers, as ship managers, as members of the maritime community, and importantly, as part of this blue planet we call home.'

Explaining more about why his company joined the coalition and what it hopes to achieve, Hojgaard told Seatrade Maritime Review: 'A number of our clients are working towards a carbon-neutral way to propel ships in the future. As a partner, we take an active participation in this journey.

'The reality is that the demands for decarbonisation are only rising, and being an early adapter of new technologies and understanding the changing landscape is a competitive advantage.'

Underscoring its commitment to the environment and sustainability Anglo-Eastern has also released an eight-minute video about how it supports the United Nations' 17 Sustainable Development Goals (SDGs). Filmed in Hong Kong, India and on board a company ship, and produced in partnership with London-based TBD Media, it highlights the group's commitment to the SDGs in the areas of employment, education, gender equality, climate change and the environment.

Bjorn Hojgaard, ceo of Anglo-Eastern

As a third party manager running other people's ships it might seem that Anglo-Eastern is limited in what it can do in terms of the environment and sustainability, but Hojgaard says otherwise. 'We believe we play a vital role in the developments and testing of innovative solutions. And as the technical sounding board for a large number of owners, ship managers have an important responsibility in making sure the debate is based on facts and science.'

A nearer goal on the environmental front is complying with the IMO 2020 0.5% sulphur cap which comes into force on 1 January 2020. Commenting on preparations for the 650 vessels in the company's fleet Hojgaard said: 'We will of course ensure that every ship complies with the new rules. For some that means scrubber installations, but for most it's a change to compliant fuel with the associated preparatory work, not least in terms of training and tank management.'

Ince focused on Greater Bay Area

International law firm Ince is a stalwart of Hong Kong's maritime services and has been expanding its practice in the Greater Bay Area.

Rosita Lau, partner at Ince Hong Kong, has been taking the lead in the firm's Greater Bay Area initiative and has advised on issues such as US sanctions on Iran and matters in relation to Hong Kong arbitration.

She explained that the firm successfully held a mock arbitration in Guangzhou in July this year which attracted nearly 100 attendees. Lau was also invited by Hong Kong Secretary of Justice Teresa Chang to give opinion on the Greater Bay Area and legal developments for Hong Kong for the Chief Executive Carrie Lam's consideration when compiling her 2019 Policy Address.

The firm has also been expanding its PRC capabilities with shipping team member Vincent Zhang, a native Mandarin speaker, now a dual Hong Kong and PRC lawyer. This year Samuel Sun, a highly experienced PRC lawyer, joined the firm as a consultant focused on shipping, international trade, corporate and commercial law.

Lau won the Integration of Women in the Maritime Sector award at the Seatrade Maritime Awards Asia in Hong Kong this June.


Rosita Lau, partner at Ince Hong Kong


SEAGALAXY


SEATRANSPORT

BSM Hong Kong grows with its clients

20,170teu MOL Tribute managed by BSM HK

Capt. Firoze Mirza

Bernhard Schulte Shipmanagement (Hong Kong) expects that fleet growth over the coming 12 months will most likely come from existing customers.

Capt. Firoze Mirza, md of BSM Hong Kong, told Seatrade: 'We do expect more business from several distinct clients. Most of our business growth is from existing clients, which shows that our relationship and quality of service is good.'

The number of vessels fully managed by BSM Hong Kong has climbed to 69 vessels, up from 50 in October 2015. The managed fleet comprises 23 containerships with the remaining vessels being bulk carriers.

BSM Hong Kong, one of several BSM shipmanagement hubs around the world, has positioned itself as a centre of excellence for managing large and very large containerships, as well as bulk carriers. Although the larger part of the Hong Kong office's portfolio is handymax bulk carriers, the firm has entered into the ultra-large containership segment in the last few years and is now managing three 20,000teu vessels as well as three ships of more than 10,000teu ships quite a few vessels in the 5,000teu to 10,000teu range, according to Capt. Mirza, although handymax bulk carriers comprise most of the company's portfolio.

Two of the three 20,000teu containerships that BSM Hong Kong currently manages belong to Mitsui OSK Lines (MOL), which manages its two other ultra-large container vessels in-house. One of the reasons for the Japanese owner to outsource the task is to benchmark their own in-house performance.

'We considered it a big honour as these are their flagship vessels,' Capt. Mirza said, adding that BSM had to go through a series of stringent evaluations before bagging the job.

A few months ago, BSM has started a new business line of ship inspection in Hong Kong and Greece. Capt. Mirza said the service began with a client's request that required round-the-clock service, so the company decided to have teams in two time zones to work on the project.

The largest client of BSM Hong Kong is Interlink, followed by Bernhard Schulte GmbH, the manager's parent. The company also manages vessels belonging to several Japanese shipowners as well as customers from the US and Europe.

Tamar launches Chinese cadet programme

In order to ensure a future pipeline of quality seafarers Tamar Ship Management is to start its own cadet programme in China next year and is recruiting the first batch right now.

'Crewing is the most important part of ship management, because it is the biggest cost by far,' Tamar md Martin Peter Henry told Seatrade Maritime Review. 'When we were a younger company, we had to recruit staff from the marketplace, but now we have grown we need to make sure that we have a steady flow of new people coming through.'

For the first year the company is taking on 30 cadets, who will be on board their first vessels between January and March 2020.

Tamar Ship Management's fully-managed fleet has expanded from six ships at end-2016 to 31 vessels at present, with all ships being geared handysize, handymax or supramax bulk carriers.


Peter Henry

The company is also in the early stage of implementing a new crewing software called Cloud Fleet Manager from Hanseaticsoft (see also later article) which will be fully rolled out before the end of this year.

'In 2017 and 2018 growth was really dramatic,' Henry added. 'We have taken this year to stabilize, reflect and prepare our team for what can be the next step, which is to grow a little bit more.

'But next year we have 17 drydockings where we have to install ballast water system on vessels,' he continued. 'That's a huge amount of work. We have only taken three to four ships in during 2019, which is okay. It has been good to have this time to put some new software in place, build the team and stabilise.'

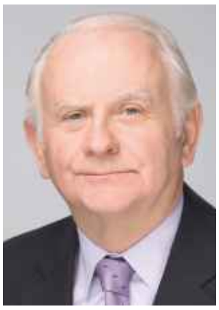
Tamar Ship Management currently manages the majority of Taylor Maritime's fleet, six ships owned by Denmark's ID Shipping and ships owned by several other companies. It is also undertaking newbuilding supervision of a handysize being constructed at Shimanami Shipyard, which is due to be delivered in January 2020.

Liberian Registry expands Asia presence

Continuing on the expansion trail the Liberian Registry administered by LISCR (Liberian International Ship & Corporate and Ship Registry) opened its ninth Asia office in Imabari, also its second branch in Japan, in October this year.

'It shows our commitment to Asia and to the Japanese market in particular,' the Hong Kong-based md of LISCR (Far East) Gerry Buchanan told Seatrade Maritime Review. 'The Japanese market is very important to us and we'll be expanding there greatly.'

Clarksons data shows the Liberian Registry as having increased the tonnage of its fleet by 6.2% in the first eight months of 2019, related Buchanan. This makes the flag the second fastest growing registry after Malta, which recorded 6.9% gt growth over the same period, partly due to Brexit's impact on the UK Ship Register.


Gerry Buchanan

The Liberian fleet currently stands at around 4,400 ships of over 170m gt.

'We are very pleased with the growth this year,' Buchanan continued, attributing the result to the flag's professionalism, cost-effective structure and quality of service.

One particular advantage to shipowners serving Asia is an agreement with the Chinese government which allows Liberian flagged vessels to receive a 28% discount on all port tonnage dues in the country. 'That's a tremendous advantage to whoever is paying the port tonnage taxes,' commented Buchanan. 'We have picked up a lot of tonnage on the basis of that agreement.'

The Liberian Registry also prides itself on its high-tech prowess and having been a pioneer in e-certificates and the application of advanced technologies. 'We have been doing electronic certificates since 2007,' Buchanan reminded. 'Some other registries are just starting to do it now, we have perfected it.'

Meanwhile, shipowners can interact with the flag using an online system called Waypoint to access certificates, pay invoices, request inspections and so forth. Another platform called SEA System, offered by LISCR, enables owners to apply for a Liberian license for their crew online.

Gulf Oil Marine enjoys strong growth


Gulf Oil seminar

Gulf Oil Marine Ltd has recorded an around 30% growth in EBITDA in the 12 months ended September 2019 as the company expanded its lubricated fleet while maintaining its extensive network of port coverage.

The company significantly grew the fleet using its lubricants by adding 209 ships between the five months from April to September, ceo David Price told Seatrade Maritime Review, giving it a 3% global market share, and enjoys a presence in more than 1,000 ports across 100 countries.

'We have definitely got the biggest port coverage for lubricant oil,' Price said, adding that a lot of the bigger companies have narrowed their coverage down to far fewer ports.

While marine lubricants might seem a highly commoditised market, Gulf Oil Marine aims to add value to customers by more frequent technical visits, maintaining an extensive port coverage and provide customised and quality services, according to Price.

Looking ahead, Price said the firm looks to continue a moderate and sustainable growth and will keep its products available in more ports than competitors.

Commenting on the approaching IMO 2020 Global Sulphur Cap, he predicted the transition might not be entirely smooth with all sorts of possible tensions between the various parties in the industry. The company has a 2020 Ship Implementation Plan Toolkit available via its website and also been hosting technical seminars in countries like Vietnam (pictured) to advise customers on compliance with the regulation.

One of the problems could be fuel management on board vessels, Price warned, since charterers are buying the fuel while shipowners are the ones responsible for compliance with the regulation.

Also charterers will want to extend the use of high sulphur fuel oil as long as possible for those vessels without scrubbers fitted. This may result in ships being left with significant quantities of HSFO that they won't be able to use after 1st January 2020.

'I hope that I am wrong and the implementation of the 2020 regs goes smoothly but I am concerned that initially there may be some significant problems to be dealt with,' Price said.

HONG KONG MARITIME WEEK 2019

HONG KONG 香港海運週2019 MARITIME WEEK

Since its launch in 2016, the Hong Kong Maritime Week (HKMW) has been a successful annual event among the maritime community in Hong Kong, participated enthusiastically and supported staunchly by the industry. This year, the Hong Kong Maritime and Port Board will keep on the momentum and bring a series of diversified maritime activities to the industry and general public.

The fourth edition of HKMW will be held from 17 to 23 November. The Hong Kong Shipowners Association and the Hong Kong Maritime Museum will be the co-organisers and, Hong Kong Trade Development Council and Invest Hong Kong will be the partners of the HKMW. This round of the week-long events cover eight themes, including ship finance, ship management, marine insurance, maritime law and arbitration, maritime technology, port and logistics, education and career, and shipping and maritime. Through intensive and multifarious maritime activities, we hope to raise public awareness of the economic contribution made by the port and maritime sectors, enhance young people's understanding of the maritime industry to attract them to pursue a career in the industry, and to promote Hong Kong as a preferred base for operating maritime businesses.

HKMW 2019 is vibrant - there will be some 45 activities in different formats, including conferences, forums and seminars, corporate activities and ceremonies, visits, competitions, exhibitions and family fun day. Over 40 local and overseas industry organisations and professional associations will be staging the events, including renowned international maritime event hosts, such as Capital Link, DNV GL, Lloyd's List, Mare Forum, Maritime CEO, etc.

HKMW 2019 will start with the fun-filled Orienteering Race on 17 November, followed by the official opening ceremony to be held on 18 November. Right after the opening ceremony, we will bring in the inaugural "Capital Link Hong Kong Maritime Forum". Capital Link regularly hosts a variety of large-scale international maritime forums in New York, London, Athens, Shanghai, Singapore, Tokyo, etc. This will be the first time for Capital Link to host the Hong Kong Maritime Forum, and maritime professionals are invited to share their insights and exchange their views on ship finance, ship management and other current topical issues in the maritime sector.

Please stay tuned and visit www.hkmw.hk for the latest information.

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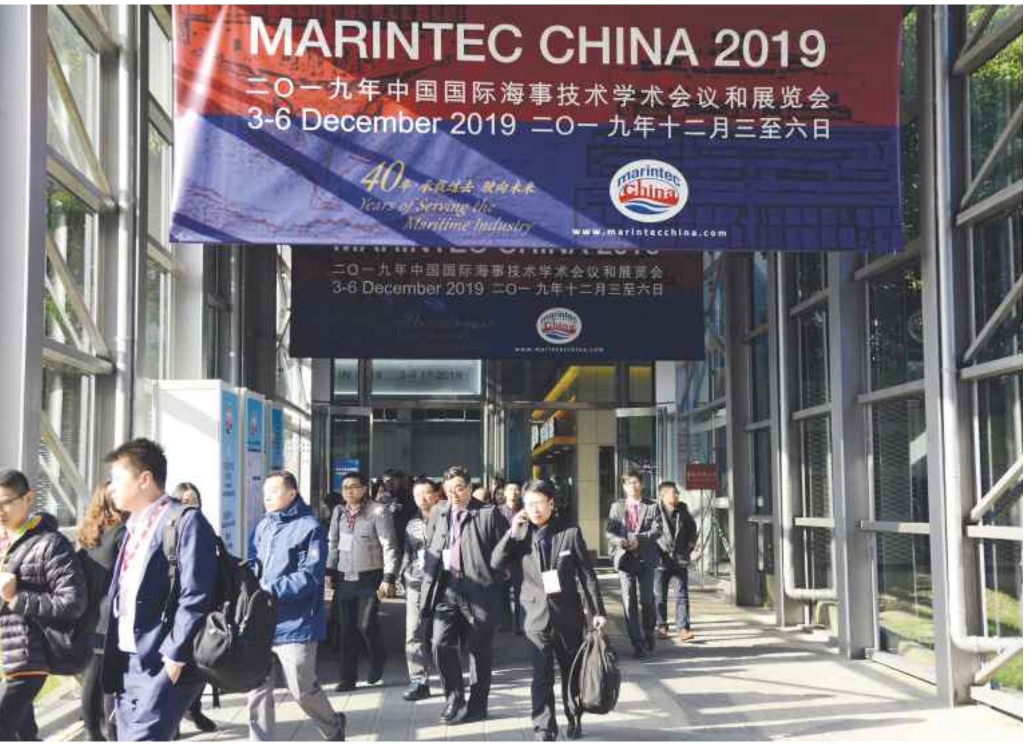

Marintec China marks 40-year anniversary

This year's Marintec China 2019 will be be held at the Shanghai New International Expo Centre from 3-6 December, and will celebrate the event's 40 years of excellence serving the Chinese and international maritime industry.

The fair has evolved massively in recent decades, in step with the transformation of Chinese shipyards from the 1980s onwards, the rise of globalisation and shift in the shipbuilding market eastwards in the 1990s, awareness of the environmental responsibility of the industry and the rise of Chinese-owned tonnage in the 2000s, and digitalisation and rapid technological and economic change in the 2010s.

Co-organised by the Shanghai Society of Naval Architects and Marine Engineers (SSNAME) and Informa Markets, Marintec China 2019 is set to mark a new record with more than 2,100 exhibiting companies attending the fair, covering a total exhibition space of over 90,000sq mtr.

'This year is the 40-year anniversary of Marintec China and also an important milestone for the rapid development of China's shipbuilding industry in the last 40 years.' Prof. Xing Wenhua, chairman of the Chinese organizing committee of Marintec China, said at a pre-event press conference in August. 'As the earliest industry to open up and enter the international market, the Chinese shipbuilding industry has set up a good benchmark for China's manufacturing industry to go abroad.

'The Chinese government has abolished the restriction on the foreign capital shares in the marine industry last year so as to help shipbuilding industry open further,' he continued. 'In addition, the Chinese government is positively promoting the construction of free trade zones, where relevant supporting policies are being refined and implemented to make more opportunities for shipping, shipbuilding and other related industries.'

A total of at least 15 national/regional pavilions will be present at the exhibition, from Austria, China, Denmark, Finland, Germany, Hong Kong SAR, Japan, Korea, the Netherlands, Norway, Singapore, Sweden, Taiwan Region, UK and US.

Busy exhibition floor

The whole range of marine technologies, products and services will be showcased, from raw components to shipbuilding materials, propulsion systems to prime movers, electrical systems and equipment to deck and safety equipment, shipping to port constructions, and offshore industry to cruise interior architecture and maritime services.

The Senior Maritime Forum conference this year has the theme 'Innovation, Intelligence, Fusion' and will consist of sessions on Shipbuilding and Ocean Engineering, Smart Shipping and Ports, Marine Finance and Law, Marine Equipment Technology and Cruise Interiors. A common theme running through all sessions will be the impact of 'intelligent' technology on the entire shipping, logistics and shipbuilding chain.

A strong line-up of more than 50 international speakers will include representatives of ABS, Clarksons Research, Cyprus Shipping Chamber, Danish Maritime Authority, DNV GL, Fincantieri, IACS (International Association of Classification Societies), ICS (International Chamber of Shipping), Kawasaki Heavy Industries, Lloyd's Register, the Norwegian Government, Meyer Werft... and many more.

With the booming cruise market in China, the cruise shipbuilding industry has experienced significant growth meaning a new area of the exhibition, dubbed Marintec Interiors, will be launched at Marintec China 2019. Supported by CSSC, CSIC, China COSCO Shipping and China Merchants Industry, the event will be the first event focusing on the interior architecture and outfitting for the Asian cruise industry.

All participants of the international maritime industries are warmly welcomed to attend the 40-year anniversary event in early December, with visitor pre-registration now available at www.marintecchina.com.

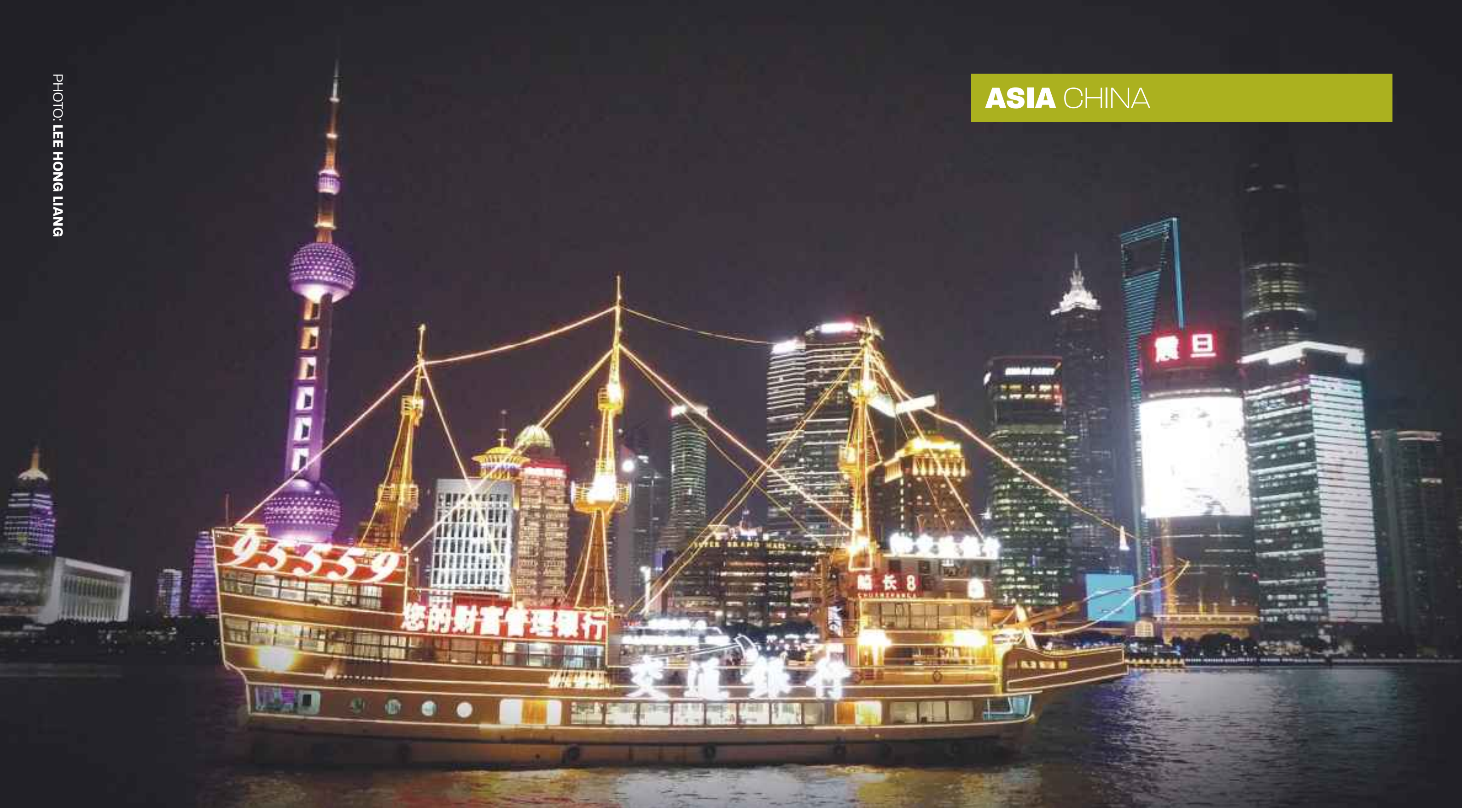

PHOTO: LEE HONG LIANG

China's growing reach

China's shipping sector has seen a rapid build-up in fleet strength particularly over the last decade. Just over a year ago, the Chinese fleet reached a larger capacity than that of Japan, which had been in the number two spot after Greece for an extended period.

According to Clarksons Research data, China's owned fleet had grown to 5-6% of the world's total in the early 2000s, and by mid-2019 the proportion was approaching 14%. Over the past decade, since the end of 2009, capacity rose from 74.4m gt to 189.3m gt at end-August 2019, an increase of 115m gt or 154%.

China's rising commodity imports and extensive exports of manufactured goods have contributed to the growth in seaborne trade flows, and hence a greater need for a larger shipping fleet. The potential for generating substantial profits by owning and operating shipping assets is also significant.

During the five-year period from 2014 to 2018 the Chinese containership fleet was the fastest growing of the three main shipping segments, expanding from 12.4m gt to 36.2m gt, a 191% increase. Tankers saw a 41% increase from 22m gt to 31.1m gt while the bulk carrier fleet expanded by 24% from 73.9m gt to 91.7m gt. Gas carriers, a relatively small segment, saw 210% growth from 1.1m gt to 3.5m gt.

China-owned fleet capacity is to be further expanded in 2019 as numerous large vessels are scheduled to be delivered this year. Tanker deliveries include 16 suezmaxes and nine VLCCs, bulk carrier deliveries three newcastlemaxes and eight valemaxes, and containership deliveries four 13,500teu units and six ultra 19,000-21,000teu ultra large container vessels. Many of these ships have been delivered in the first nine months of this year.

Clarksons Research data further shows that orders for new ships to be delivered into the China-owned fleet stretch out through the next two years and beyond.

At end-August 2019, the data listed the entire newbuilding orderbook for Chinese owners as totalling 486 ships of 19.4m gt. The tonnage volume is equivalent to 10.2% of the existing fleet's 189.3m gt capacity. Within this orderbook, 3.2m gt is scheduled to hit the waters during the last four months of 2019, followed by 8.4m gt due in 2020 and 7.8m gt in 2021 and later years.

In comparison, Japan has a more extensive orderbook at 29.1m gt, equivalent to almost 17% of its existing owned fleet. Greece's orderbook is lower than China's at 16m gt or 7% of its existing fleet capacity.

Meanwhile, China has set out a plan to strengthen its transportation sector with an aim to improve infrastructure and expand the logistics network globally in line with the enlarging shipping fleet. The plan includes establishing a comprehensive modern transportation system by 2035 with a focus on eco-friendliness.

Li Xiaopeng, China's minister of transport, said Chinese ports handled a combined total of 14.3bn tonnes of cargo in 2018, ranking number one in the world. With such massive cargo handing volume, China has seen it fit to look into equipment R&D and expand capacity, so as to reduce logistics costs and raise operational efficiency, Li pointed out.

China will also strengthen the development and construction of large-sized LNG carriers, polar vessels, intelligent ships and vessels utilising new energy sources, as well as promote and upgrade the technology for intelligent shipping and automated terminals.

In addition, the nation will develop cross-border railway network and build more sea-rail transportation channels.


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Sino-Russian jv for LNG transport via Northern Sea Route

L-R: Sergey Frank, president and ceo Sovcomflot; Leonid Mikhelson,chairman of the management board of Novatek; Xui Lizhong, COSCO; Wang Yanzhi, Silk Road Fund

In early June COSCO Shipping, Sovcomflot, Russian gas producer Novatek and the Silk Road Fund inked an agreement at the St. Petersburg International Economic Forum to set up an Arctic shipping joint venture to manage icebreaking LNG carriers.

The Maritime Arctic Transport (MArT) joint venture will focus on managing Arctic ice-class vessels, both existing and new ships, for Novatek LNG projects including Yamal LNG and Arctic LNG 2. It will cover shipping from the Arctic zone of the Russian Federation to the Asia-Pacific region, as well as organising transit cargo traffic along the Northern Sea Route (NSR) between Asia and Western Europe.

The agreement was signed by: (pictured l to r) Sovcomflot president and ceo Sergey Frank, Novatek chairman Leonid Mikhelson, COSCO Shipping Corporation chairman Xui Lizhong, and Silk Road Fund president Wang Yanzhi.

The shipping jv agreement between Russian and Chinese interests came as Novatek announced it had inked share sale agreements with both CNOOC and China National Petroleum Corp (CNPC) for 10% stakes in the Arctic LNG 2 project.

Sergey Frank, president and ceo of Sovcomflot, said: 'The sheer scale and level of technical complexity of the new international project to provide safe, year-round, transportation for LNG across the Northern Sea Route have required the combination of a whole range of intellectual, technological, human and financial resources, from leading Russian and Chinese organisations and businesses.

'We are pleased to participate in this Russian-Chinese consortium in such an important energy project for the economies of our countries,' he added. 'The project's transport and logistics are consolidated around a single operational platform that will contribute to increased efficiency, safety, and further optimisation of the entire cargo transit traffic system through the waters of the Northern Sea Route, including the Polar Silk Road project.'

CCS enhances its international standing

Founded in 1956, China Classification Society (CCS) is headquartered in Beijing and is a full member of IACS (the International Association of Classification Societies).

CCS provides classification services to ships, offshore installations and related industrial products by furnishing world-leading technical rules and standards, as well as carrying out statutory surveys, impartial and integral classification, verification, certification and accreditation and other services in accordance with international conventions, regulations and the related rules and regulations of the authorising flag states or regions.

To date CCS has been authorised by 46 major shipping nations or regions in the world including China to perform statutory surveys for the ships flying their flags. Its stated mission is 'safety, environmental protection and creating value for clients and society.'

The class society has 114 offices established across the globe, providing services for a range of industries and sectors including shipping, shipbuilding, ship finance and insurance, marine equipment, ocean resources exploitation, and ocean scientific research, as well as more broad-based industrial supervision, system certification, government policy and rule development, energy saving and emission reduction, risk management and evaluation… the list is not exhaustive as CCS is constantly developing new business areas.

The company says its guiding policy is to 'build a first-class international classification society with its own characteristics and with technology as the foundation and credibility as the cornerstone.' It aims for continuous improvement through 'advanced technology and quality service,' thereby further enhancing its esteem and recognition by the international industry.

This July CCS president Mo Jianhui attended the International Forum on Ship Technology and Safety & China Oil Transportation Safety Forum in Ningbo where he delivered a keynote speech addressing four themes he identified as critical to the shipping industry's evolution: challenge, development, safety, and green.

The same month CCS vp Sun Feng led a delegation to Athens to visit leading Greek shipowners, including Delta Tankers, Dynacom and the Union of Greek Shipowners.

Game changer for Med transhipment ports

Neil Davidson

Felicity Landon discusses how liner hub patterns in the Mediterranean are changing with Drewry's senior ports and terminals analyst **Neil Davidson**.

We are accustomed to the traditional narrative in the story of transhipment in the Med: it's a tricky, unpredictable business; volumes can be here today, gone tomorrow; clients are fickle.

But times are changing. As Neil Davidson, senior analyst - ports & terminals at Drewry puts it, transhipment is 'much more sticky now'. The reasons are clear.

'The main thing about the Mediterranean hubs is that volumes are coalescing around liner ownership much more than ever before,' he says. 'For example, Malta and CMA CGM, Piraeus and Cosco, Tanger Med/Port Said East and Maersk, Gioia Tauro and MSC. It has always been the case that a transhipment port had to have strong patronage from big carriers to succeed but it is even more the case now – and ownership by a carrier seems to be a prerequisite.'

This year the headlines have recorded some dramatic ups and downs. Cagliari lost its last major customer when Hapag-Lloyd decided to move out. Malta Freeport Terminals lost out when Maersk shifted some of its services from MFT to APMT's facilities in Tanger Med. In Gioia Tauro, Contship stepped away and MSC took over as 100% operator, with a commitment to some major investments. Tanger Med expansion continued, with APMT's opening its $800m MedPort Tangier terminal in June.

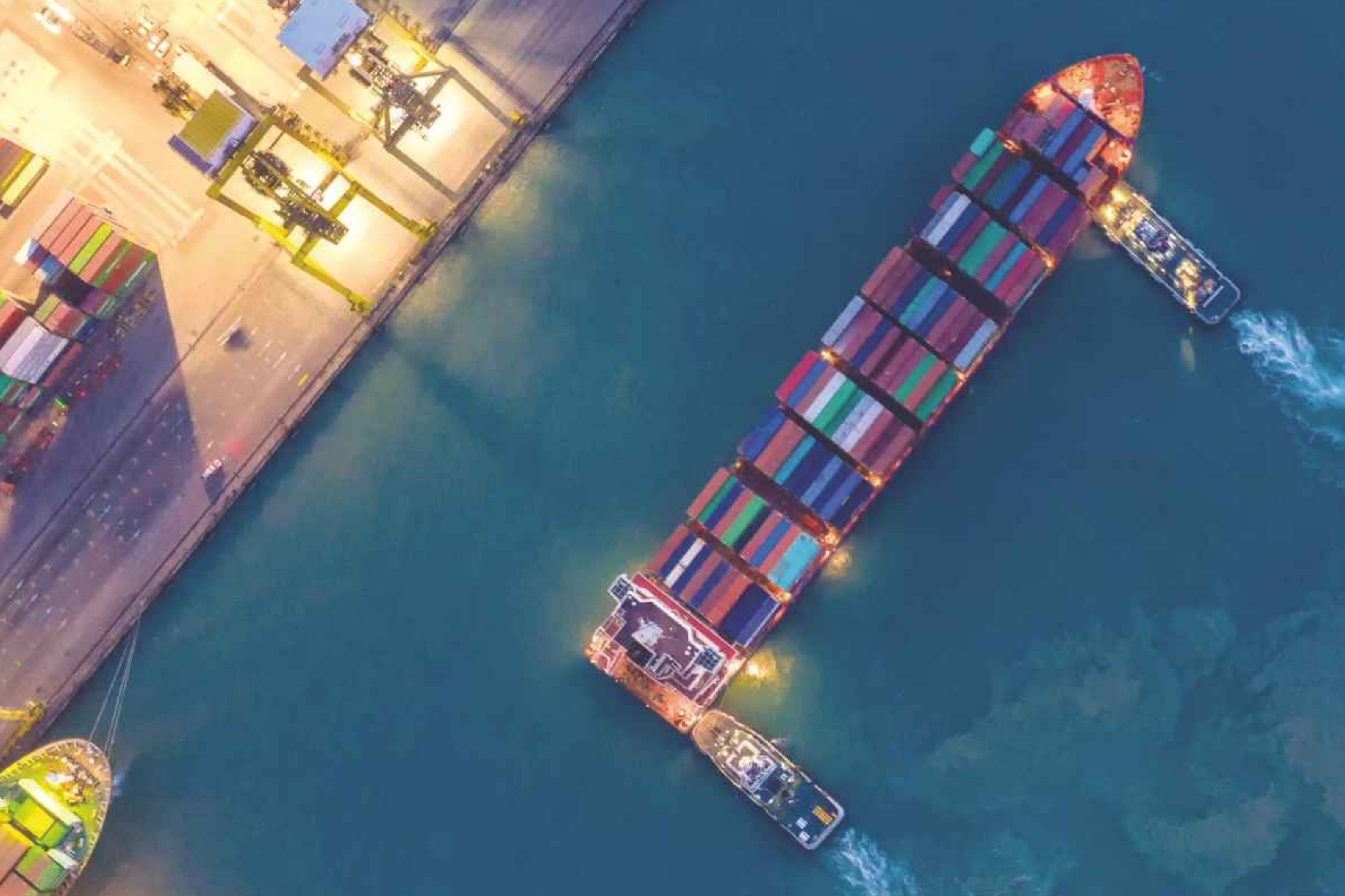
Davidson says: 'Volumes are focused in a smaller number of much bigger hubs with stronger carrier support, usually through ownership – majority ownership in a number of cases. All of this means a challenge for the likes of Yilport, which took over Taranto. How do they get into this market, which is becoming so sticky and dominated by huge carriers?'

One thing is for sure, he says – the market never stays the same. 'There is talk of a new terminal at Valencia. MSC is in the driving seat to be the developer of that, so once again shipping line involvement is very important.'

And what of Savona's new container terminal? 'It will be interesting to see to what extent it gets into transhipment. It isn't really in the best location, being slightly out of the way, so maybe it will be more of a gateway port.'

Gioia Tauro, meanwhile, is now 100% owned by Terminal Investment Ltd (TIL), the terminal arm of MSC, following the deal with Contship announced in April. MSC is said to have set out on a path of investments worth €100m, with recent months having seen major dredging going ahead and the demolition of three obsolete quay cranes to make way for new equipment ordered in China. However, severe absenteeism by workers is said to be continuing.

At the western end of the Mediterranean, APMT's new MedPort Tangier terminal is the operator's second container terminal at the Moroccan port of Tanger Med. The new facility has opened with annual capacity of 3.3m teu, and this will rise to 5m teu when all phases are finished. It currently has 1,200mtr of quay, with potential to increase this to 2,000mtr, and three berths with depth alongside of 16 to 18mtr, served by 12 remote-controlled super-post-Panamax ship-to-shore cranes. These have a height of 144mtr when



boomed up, and an outreach of 72mtr, with twin-lift capability.

'The remote-controlled cranes will provide the fastest, safest and most efficient loading and unloading services to the newest ULCS with capacities of more than 22,000teu,' said a spokesman for APMT/ Maersk at the opening.

MedPort Tangier will operate as a transhipment hub dedicated to Maersk and its partners, said APMT. 'The new facility will support Tanger Med Port to increase its annual throughput capacity to 9m teu, helping to improve Moroccan connectivity and further support global trade,' said a spokesman. Together, APM Terminals Tangier, MedPort Tangier and Algeciras form APMT's 'WestMed Hub Terminals'.

The other major operator at Tanger Med is Eurogate. Its Eurogate Tanger container terminal has 812mtr of quay with depth alongside of up to 18mtr and a terminal area of 400,000sq mtr. And Eurogate is also expanding, as part of the joint venture with Marsa Maroc and Contship Italia in the new Container Terminal 3, now taking shape and due to be operational in the middle of 2020.

'The excellent geographical location of the port directly on the Strait of Gibraltar, and thus serving the major east-west container shipping trade lanes, has prompted Eurogate to continue investing in the location by participating in a joint venture for the construction and operation of Container Terminal 3,' said the company.

At the opposite side of the Med, APMT is working with the Egyptian government to push the Egypt Vision 2030 for Port Said East Port and the Suez Canal Container Company (SCCT). SCCT, which opened in 2004 on a 49-year concession, is a joint venture, with APMT holding 55%, and other shareholders including Cosco (20%), the Suez Canal Authority and the National Bank of Egypt.

The 'vision' is that the port will regain its position as one of the most competitive in the south and east Mediterranean region. The Egyptian government has invested massively in infrastructure including the Ismailia tunnel, which runs under the Suez Canal and improves connectivity between SCCT and industrial zones in Greater Cairo, and other road and tunnel projects. Transhipment accounts for 95% of SCCT's throughput and the terminal has a capacity of 5.4m teu. There are plans for bigger cranes and more equipment, and also there is potential to create another 450mtr of quay.

Meanwhile, Egypt's Damietta Port Authority recently signed an MoU with Eurogate and Contship Italia to establish a new logistics hub including cargo terminal, rail facilities, dryport and goods distribution area, a total investment of €750m. Announcing the MoU in September, Transport minister Kamel Elwazir said a the feasibility study was expected to be completed within four months and the project was planned to be complete by the end of 2022. This, he said, would make Damietta a hub port in the Middle East.

Dean Davison, technical director at consultants WSP, also highlights the importance of terminal ownership in the mix. 'What we are seeing is the shipping lines just going to their own terminals – that is why Contship couldn't make Gioia Tauro work,' he says. 'Also, there is a lot of capacity and I am not sure the volumes have been that strong.'

In addition, he points to a trend towards doubling up on hub calls. 'Rather than making one call in the central Med and feedering from there, some are calling in Port Said East, then going all the way to Tanger Med, so adopting a two-call strategy. As a result, the central Med may be losing out. In short, we talking about two bus stops – but not one in the middle, and it has become a case of call at their own bus stop and not at anyone else's. That means if you are a common user terminal, your options are shrinking.'

Dean Davison

But there is no shortage of new plans being discussed. Neil Davidson points out 'various plans' in places like Libya and Algeria. 'There seem to be big plans but nothing real,' he says.

He says there is a mix between lines making one hub call or more, with many simply calling at an east hub on one string and west hub on another. 'Lines have four, five or six strings a week from Asia and Mediterranean services. So they can really mix and match. Trade doesn't have to use a single service – and you can switch cargo in places like Jeddah, too.'

Another factor, he says, is the continual cascading of bigger ships into the Europe-Asia route and in the Med too. 'Ship size is going up in leaps and bounds. The lines are continually building services, putting on bigger ships, adjusting frequency, and so forth.'

Looking ahead, Neil Davidson predicts 'various adjustments and service changes' in the short term, and changes in alliances with resulting impact on port rotation in the slightly longer. Beyond that there is the prospect of more regional rather than global trade, which he feels could be technology-assisted. He gives the example of rising automation and sewing robots or 'sewbots' that could shift garment manufacturing back to high-wage areas like Europe.

'Perhaps we are starting to see the end of this era of globalisation and more regional trade,' he concludes, 'which puts a question mark over the whole big ship deepsea transhipment story in itself.' ●

Staying focused on Blue Economy

The tiny island of Malta continues to punch far above its weight in maritime terms, as Felicity Landon reports.

In the middle of the Mediterranean, close to the main shipping routes, home to Europe's leading ship registry, a major cruise destination, a force to be reckoned with in transhipment, bunkering, shipbuilding, shiprepair and offshore support activities, and with a host of support services from legal to financial … Malta has earned its place as a key international maritime hub.

In October, its maritime clout increased some more, with the official opening of MaritimeMT's new training centre in Hal Far. Funded by the Malta Maritime Pilots Cooperative with EU and other support, the €4m centre has been built in the shape of a ship, with a stunning view of the expanse of the Mediterranean Sea. It is spread over 2,300sq mtr, with room to grow.

The investment has included extensively updating two full mission bridge simulators and the purchase of a liquefied cargo handling simulator, a GMDSS simulator and an ECDIS lab, along with a range of classrooms specifically equipped for maritime training.

MaritimeMT is run by the training arm of the Malta Maritime Pilots Cooperative Society. The facility has been built, says chief pilot Capt. Jesmond Mifsud, to strengthen MaritimeMT's position as one of the best maritime training centres in Europe. As well as STCW, shiphandling and other training for seafarers, it will provide courses for shore-based personnel in the maritime sector.

Joseph Meli, marketing and operations manager at MaritimeMT, says: 'We are at the starting point and there is a lot still to build up. But this is a very important element in our industry. The pilots decided to invest in this facility to give a push to maritime education. We are not speaking only of traditional merchant shipping or recreation, but we are reinventing the wheel – sometimes it needs to be reinvented.

'We are doing that because we ask all stakeholders, including the government and education system, to come and discuss what we lack and what we need in terms for skills and training – now, and for five- and 10-years' time.'

MaritimeMT will be in continuous consultation with the maritime sector including Transport Malta, other authorities and commercial interests in order to analyse the current and future needs of the industry, says Mifsud.

Malta's maritime prospects are also being championed by Malta Marittima, the government agency set up in 2016 to promote a wider picture of the 'Blue Economy'. Following up on the European Union's integrated maritime policy, the organisation has defined five main clusters – maritime commercial, logistics, marine engineering, fisheries and aquaculture, and energy. Its task is to facilitate, coordinate and promote the whole sector.

Transport Malta, part of the Ministry of Transport, is a key player in Malta's maritime activities, as both the Malta Ship Registry and the ports and yachting directorate fall within its remit.

'The blue economy for Malta is a way of life,' says Capt. David Bugeja, chief officer of the ports and yachting directorate. 'The EU requires every member state to have an integrated maritime policy – and with Malta being one of the most densely populated countries in Europe, and tourism shooting up, our challenge today is to keep our blue economy sustainable and to appreciate it more. Innovation and progress are smart, but we also need to look after it.'

One theme is remarkably familiar. Even in the island nation of Malta, where a view of the Mediterranean is seemingly around every corner, there is still an apparent lack of understanding when it comes to the importance of the maritime and 'blue' world. Hence the necessary focus on encouraging skills and training.

Transport Malta works to support and promote careers in the maritime industry, he adds. 'There are so many other opportunities for the younger generation. Maritime isn't necessarily up there on the list of 'things I would like to do'. We need to accept that the industry could be promoted better.'

Malta is also a member of the WestMED initiative, an EU-funded project seeking to create a safer and more secure maritime

space, encourage a smart and resilient blue economy, and deliver improved maritime governance. There are five partner countries in Europe and five in North Africa.

Malta Freeport Terminals

The tough nature of transhipment has become only too clear for Malta Freeport Terminals (MFT) this year with the decision by Maersk to shift some of its services away from the Marsaxlokk facility to its new (APMT) facility in Tangier Med.

In 2018, MFT handled 3.31m teu, reflecting a number of new services attracted during the year, which opened up new markets and increased volumes handled by the port from South America to the Mediterranean, says ceo Alex Montebello. 'During 2019, MFT is expected to register a decrease in its throughput,' he adds, alluding to Maersk's partial defection to Tangier Med, although he emphasises that Maersk has retained its presence in Malta through services covering South America and Northern Europe.

As to new business, CMA CGM and Marfret recently started a service between the Med, Caribbean and US, 'further enhancing the port's connectivity with the western and southern continents', he says.

The service provides connections to five additional ports: Pointe-à-Pitre (Guadeloupe), Fort-de-France (Martinique), Houston (US), Veracruz (Mexico) and Puerto Moin (Costa Rica). 'This complements Malta Freeport's present extensive network to South America, covering five countries including Argentina, Brazil, Colombia, Peru and Uruguay.'

MFT is a major port of call for the Ocean Alliance (CMA CGM, Cosco, OOCL, Evergreen), Hamburg Sud, Hapag-Lloyd, Maersk Line, Marfret and Sealand. Common feedering services are being run by Unimed Feeder Services, NileDutch, Tarros Line, Brointermed Lines and Messina Line, with other feedering services operated by ShortSea Line and Sealand.

All of this adds up to regular connections with 111 ports worldwide, 54 of them in the Mediterranean, says MFT.

MFT has recently invested in 15 RTG canes from KCI Kone Cranes – these were assembled on site and commissioned this year and are on top of 50 RTGs already in operation.

Considerably faster than conventional cranes, the new 15 RTGs are also safer to operate, featuring an anti-collision system and stack profiling, says Montebello. They feature an advanced non-hydraulic design, easy and accurate autosteering and the fastest load handling cycle in the market. They have a variable speed engine and are able to stack six high, with a very stable operation due to a rigid structure and 16-wheel instead of 8-wheel configuration.

'There are also a number of important environmental features on the new RTGs which were incorporated in our requirements. They consume less fuel and are more energy efficient, with lower emissions,' he says.

The new RTGs are also fitted with white noise sounders that are considerably quieter than alarms used on older cranes, says Montebello – and the same white noise sounder technology has been retrofitted throughout the existing fleet of 50 RTGs.

Other investment this year has included the purchase of 31 tractors, 36 trailers and two reachstackers. In addition, three new reefer platforms have been installed, bringing total reefer slots on Terminal One to 1,258, with the total for both terminals being 1,658. There are plans to buy two new quayside cranes to replace two old ones.

Malta's blue economy is said to employ around 10,400 people and generate €406m in gross value added, representing a 4.7% contribution to GDP.

'The retention and strengthening of the Maltese maritime industry's competitiveness is an important priority of the Malta blue economy,' says Montebello. 'With the increasing competition within the Mediterranean region, it is crucial for maritime organisations to maintain and strengthen their reputation and strive to constantly improve standards.'

Malta Freeport is also an active member of the Malta Maritime Forum, which brings together all the stakeholders in the Maltese maritime industry and works to expand Malta's network as an international maritime hub. ●

Brexit uncertainty for the Rock

With much attention having been focused on how UK ports are going to cope with the UK leaving the European Union, the British Overseas Territory of Gibraltar faces an equally difficult task, as **Felicity Landon** reports.

Gibraltar voted overwhelmingly to remain in the EU in the 2016 referendum; nevertheless, it is facing up to some potential upheaval, particularly if the UK leaves the European Union without an agreed deal.

Gibraltar's position is unique; it is not in the EU's customs union or subject to its VAT or excise rules, which could ease some of the problems. However, there are real concerns that Gibraltar's open land border with Spain could be affected by Brexit. At present, the vast majority of food, medicines and other supplies are brought into the territory over land, and therefore across the border between Gibraltar and Spain.

Gibraltar Port Authority has responded with a very specific investment which will enable the handling of more ferries if they are needed to bring goods in by sea.

'We have modified some of our quayside to incorporate a new ferry ramp,' explains Manuel Tirado, ceo and Captain of the Port. 'We may be seeing different types of ferries and it is important to make sure we have the facilities they may need. We have everything ready to go and we will be ready for Brexit.'

A ferry company is ready to submit a proposed schedule, he says. 'If we need to bring goods by sea, various ferry companies are interested in calling Gibraltar.'

But for the moment the investment is 'not major', he adds, as the port waits 'to see what Brexit is actually going to be like'.

Plans have also been drawn up to deal with the complexities of importing food of animal origin, which would need to go through a Border Inspection Post. 'The land border hasn't got a Border Inspection Post – the nearest is at Algeciras. So the cargo would have to arrive by sea and we would have a ferry from Algeciras to Gibraltar.'

Does Tirado foresee a ferry connection direct with the UK? 'It's not off the cards because what is affected is goods coming from the UK,' he replies. 'So we don't discount the possibility of having a ferry or container ship directly from the UK.'

Gibdock, meanwhile, has been giving Brexit the silent treatment. A year ago, the messages from the yard were generally optimistic – but it's understood that Gibdock felt it was becoming something of a political football in relation to both local elections and Brexit, and in spring this year the usual flow of press announcements ceased.

Bunkering

Setting Brexit to one side, Gibraltar port continues to focus on bunkering as one of its three key area, alongside superyachts and cruise business.

Tirado says Gibraltar's bunker suppliers are well placed for the 2020 sulphur cap. 'As part of our transition, we will implement and enhance supervision and monitoring,' he says. 'At a recent meeting with the bunkering forum, we explained what we wanted to do on monitoring and the model we wanted to put in place. The suppliers have all been consulted and are happy with the measures.'

Gibraltar is considered the number one bunkering port in the Med: 'We will be well placed to have the necessary product available in 2020 and we feel that this might be an opening for more business for us,' says Tirado. 'The fact that our suppliers are

Gibdock

not having any difficulties in sourcing the new product, means we will probably have slightly higher numbers in 2020.'

The port authority's involvement is crucial, he adds. 'Our reputation is very well known worldwide in the bunker industry and as regulators we need to make sure we are seen to be doing the right thing. We have been held up as an exemplar for other ports, due to the fact that we have these monitoring systems and we take a leading role. Bunkering is key to our business and we need to make sure that whatever we deliver is compliant with requirements.'

There was a slight decline in numbers due to problems with two bunker suppliers last year, says Tirado. 'But Aegean was taken over by Minerva and they are coming back very strong. And other bunker suppliers stepped up their game and managed to maintain overall volumes.'

LNG is also on the agenda. Gibraltar's new LNG power plant has just been commissioned and is successfully running purely on LNG. While bunkering is a separate issue, the port authority has worked hard to put the legal framework in place for LNG 'and we are ready to go', says Tirado. 'There is an imminent application

for a bunkering licence for LNG bunkering and we have an LNG Code of Practice already in place.

During Gibraltar Maritime Week in June, it was announced that Shell will be applying for an LNG bunkering licence; now that documents, legalities and procedures are all in place, this licence will be issued if Shell meets all of GPA's requirements, says Tirado.

In fact, the port saw its first LNG bunkering operation in September. Titan LNG supplied 3,000 tonnes of LNG by barge to Heerema's new LNG fuelled crane ship, the Sleipnir, during the voyage to its first project in the eastern Mediterranean. 'We have been told this was the biggest quantity so far of LNG supplied by barge in Europe,' says Tirado.

The GPA inaugurated its new premises last year – these are working extremely well, according to the ceo. 'We have a very good vantage point and the investment incorporated our upgraded VTS from Kongsberg Norcontrol – this has delivered exactly what we needed and can be continually updated and upgraded more easily than our old system. We included new CCTV with the VTS and this gives us a better facility to monitor what is going on in our waters, especially as it has thermal night vision. It is proving very useful in safety of navigation.'

Gibraltar made the headlines this year with the arrest of the Grace 1, the tanker detained on suspicion of breaking EU sanctions on Syria. 'Our involvement as a Port Authority was to detain the vessel in our waters until court decisions were made,' explains Tirado.

Launch of new Maritime Academy

A Maritime Academy is to be established at the University of Gibraltar, the Government of Gibraltar announced during Gibraltar Maritime Week. The university will offer four new undergraduate maritime degrees from September 2020.

A BSc in maritime science (nautical) with deck cadetship and a BSc in maritime science (engineering) with engineer cadetship will lead to deck or engine officer of the watch certification.

The same degrees will be available online so they can be undertaken through distance learning. This is expected to be of particular interest to those already working at sea who want to gain a degree while continuing to work. The degrees will be aligned to the UK's Merchant Navy Training Board and MCA standards.

'This was something that was missing in Gibraltar,' says Tirado. 'There is a need to train people locally – and from abroad too,

if possible. 'We already have a university which is working very well and this year new accommodation has been built for foreign students. We have a large number of people coming into Gibraltar to join ships and they may need to revalidate certificates or do refresher courses. This idea started from the fact that a lot of people wanted to do STCW revalidation – and slowly but surely we created the idea of our own maritime academy.'

He welcomes the fact that the government has seen an opportunity to link maritime with education. 'We have had a lot of interest already as there is a gradual move to a degree type of education on the maritime side, and we are very well placed in the Mediterranean to provide this.'

Connecting Maritime Markets Globally

New economic reality

Kuwait is relatively well-placed to weather continuing low oil prices and has launched a number of vital infrastructure projects in recent years, including modernisation of its refining capacity, Liz Bains reports.

Economists see a stable outlook for the Kuwait economy

Like the other Gulf hydrocarbons producers, Kuwait has to contend with the twin challenge of lower oil prices and reduced production volumes in recent years. Brent crude has averaged $63 a barrel in 2019, which is akin to the levels seen a decade ago, and economists are softening their forecasts for 2020.

To support prices, OPEC and some non-member allies have been restricting output since 2017 and are expected to continue to do so for the remainder of the year, further constraining income for the national oil companies and forcing governments to run deficits.

Kuwait, however, is in a stronger position than its neighbours to cope with this new economic reality. The country did not excessively inflate spending when oil prices averaged above $100 a barrel between 2011 and mid-2014. Together with Qatar, it has the lowest fiscal breakeven oil price in the GCC at $48. By comparison, Oman's is $97 and Saudi Arabia's is $85.

Despite five years of consecutive deficits which have been covered by the state's general reserve fund, economists see a stable outlook for the Kuwait economy and expect its balance sheet to remain strong, thanks to the foreign assets accumulated by its sovereign wealth fund. Real GDP growth is forecast to be between 1.5% and 2.5% in 2019.

Although Kuwait has a history of underspending and is regularly criticised for a lack of investment in economic diversification initiatives, the country has launched some vital projects in recent years. The $15bn Clean Fuels Project to modernise Kuwait's refining capacity is nearing completion. A new 73,000 barrel a day (b/d) unit at the Mina Abdullah refinery is due to enter production in December and will produce low sulphur fuels.

The construction of a 615,000b/d refinery at Al-Zour is also well advanced and due for completion in 2020. The $16bn grassroots refinery will produce low sulphur fuel oil, primarily to replace the high sulphur fuel oil used by local power and desalination plants, although it will also provide some ultra-low sulphur diesel fuels for worldwide markets.

Work is also under way to build a new terminal at Kuwait International Airport. The terminal is scheduled to open in 2023. These megaprojects, together with a number of state-backed housing projects, have been helping to keep the non-oil economy buoyant.

The project that everyone is waiting to move forward in Kuwait is the Silk City development, which has languished on the drawing board, with a price tag of nearly $100bn, for more than a decade. It would see the development of a new economic and commercial centre on the Subiya Peninsula, with an airport, rail system, free trade zone, a 1,001mtr tall tower and accommodation for 750,000 people. Last year, China signed an MoU to co-invest in the project as part of its Belt & Road Initiative. The project continues to face stiff opposition among Kuwait's parliamentarians, but it remains the most significant proposal to diversify the country's economy.

Meanwhile, no hard news is emerging regarding progress on the Mubarak Al Kabeer Port for containers that has been under construction on Bubiyan island off Kuwait at a reported cost of some KD2bn (S6.5bn). The facility was expected to be completed this year but has proved controversial, Iraq reportedly concerned it will be detrimental to its own ports' traffic.

Preparing for a greener future

Kuwaiti tanker owner KOTC has a clear vision of how the shipping industry must prepare for future environmental rules based on its own newbuilding experience, as deputy & acting ceo **Ali Abduljalil Shehab** explains to Bob Jaques.

Ali Shehab

Kuwait Oil Tanker Company (KOTC) is the shipping arm of state-owned Kuwait Petroleum Corp (KPC) and currently operates a fleet of 22 modern tankers with an average age of eight years carrying crude oil, products and gas – including 10 VLCCs, four aframaxes, two panamaxes, four MRs and two VLGCs.

The company has a further eight vessels – one VLCC, four MRs and three VLGC – under construction at leading yards in Korea and China for delivery by 2021.

Any further orders after that will depend on the requirements of principal KPC and its marketing arm International Marketing, says Ali Abduljalil Shehab, acting ceo of KOTC, but present fleet size 'should suffice' to meet Kuwait's latest projected oil production capacity of 4m bpd in 2040.

All KOTC vessels meet latest regulatory requirements and are of 'eco' design, he stresses, including those ordered more than a decade ago, well in advance of current amended MARPOL Annex VI rules flagging up a phase-in of progressively stricter sulphur limits introduced in 2010 but already discussed a couple of years before. 'We started early, making sure... we put all the requirements' into the newbuildings' spec, he says.

Hence KOTC's recent series of VLCCs, first ordered in 2008, have a dual-fuel tank arrangement, allowing them to burn either high or low sulphur depending on their area of operation; also installed are chillers, to add viscosity to low sulphur distillates by reducing their temperature. 'Our ships might be considered old but they are perfectly fit for IMO 2020 with only slight modification to their equipment – boilers, engines and so forth,' says Shehab.

Regarding scrubbers the KOTC boss feels these are only a short-term solution and will not stay economically viable for long, since even barring any possible future restrictions on their use they already take up weight and space, representing a 'fuel consumption penalty'. Besides, 'they will become obsolete as HFO availability becomes less,' he reckons. 'What we know is that when a refinery starts working on compliant fuel there'll be no going back.'

KOTC has taken other measures to increase fuel consumption on its ships, including hull optimisation, propeller fins, rounded ship superstructure to minimise wind resistance, high-performance hull painting systems, variable speed mechanisms for large onboard pumps, LED lighting throughout, and so forth, allowing it to gain ISO 5001 Energy Management certification.

The company also had the foresight to put in place the necessary communications infrastructure for ship-shore digital connectivity as far back as 10 years ago, anticipating the coming trend of remote performance monitoring and optimisation, Shehab adds, including weather routing and trim adjustment. Class society DNV GL assisted with its Navigator and ECO Insight software

In the very near future 'the public will be able to go onto a website and see exactly what emissions my shipping fleet is producing,' he promises, together with a company five-year plan of how those emissions will be reduced.

'Here we're talking about transparency... or the [current] shipping system's lack of it,' Shehab concludes, implying that the whole industry would do well to adopt similar visibility measures on its journey towards 'zero emissions by 2100'.

And how does Shehab square all this with his own country's role as a major producer of fossil fuels, and that of KOTC as a tanker owner?

'Hydrocarbons will continue to be an important source of energy for many years to come,' he says, 'but will see a different use within the system They won't necessarily be burned but will be processed in refineries, especially in the petrochemicals industry, and will be continuously used and evolved to supply the needs of the earth's growing population. Crude oil will be in demand for some time – basically we just have to make it more environmentally friendly.' ●

HEISCO targets new revenue stream

Heavy Engineering Industries & Shipbuilding (Heisco) continues to book a steady stream of domestic and international contracts in the repair, construction, refurbishment and diving service sectors. Although recent ship repair expansion across the Gulf has put a number of facilities under pressure, both on occupancy and price, a constant workload and plenty of local business in the northern Gulf stand the stock-listed company in good stead.

Mr Salem Marafi is deputy ceo, shipyard operations. He explained recently that Heisco's location in the country's main commercial port facility – Shuwaikh Port – is a significant advantage because there is little competition in the northern Gulf. Mr Salem conceded that repair prices are 'very competitive as the region is saturated with ship repair facilities', but he said that a broad international clientele continues to generate plenty of work for the yard, in addition to contracts for local and regional clients.

Heisco's subsidiary company, Gulf Dredging & Contracting (GD), is a regular customer. A leading regional company in the dredging, contracting and offshore service sectors, GD owns and operates a diverse fleet including tugs, dredgers, workboats and barges which provide a stream of regular business for the shipyard.

Salem Marafi

Heisco's recent contracts have included drydocking and repair of two small tankers, the Al Asmaey and the Al Qurna, both owned by Iraq's Ministry of Transport. Repairs and refurbishment of the Jalboot 102, a landing craft owned by Kuwait's Ministry of Defence, and various 'On-Condition Cyclic Maintenance' projects relating to US Army vessels, which the shipyard supports on a 'care of stocks in storage' programme, have also been completed.

However, Mr Salem was particularly keen to highlight the shipyard's first projects relating to offshore mooring buoys. In 2018, Heisco and GD completed the refurbishment of a single point mooring buoy for an unnamed client. The shipyard undertook drydocking and structural, mechanical and electrical repairs while GD was responsible for offshore work, including towing, piling and installation. Scope to offer what was effectively a 'one stop shop' was an attractive selling point, Mr Salem explained.

Heisco is now capitalising on its work in this sector. It is currently building a single point mooring buoy of the catenary anchor leg (CALM) type, a floating offshore loading facility anchored to the seabed, for Bluewater Energy Services. The unit, which will be owned by the Kuwait Oil Company, is scheduled for delivery at the end of the year.

'It is the first time ever for such a project to be built in Kuwait,' Mr Salem revealed. 'We consider this project as a start point for a new business for building, repair and refurbishment of single point mooring buoys. This newbuilding project is an added value that encourages us to proceed much farther in this business.'

Meanwhile, in November, Heisco will embark on the second phase of a $3m workshop upgrade, designed to provide a cleaner and dust-free environment and more protection for its workforce from the searing heat, which can exceed 50°C during the hottest times of the year. Air-chilling systems will provide lower year-round temperatures and better working conditions, probably with a further impact on the shipyard's already sound productivity levels.

HUTCHISON PORTS' NEW ICAVE TERMINAL **COMMENCES OPERATIONS**

With 24 years of experience in Veracruz, Mexico, **Hutchison Ports ICAVE** is pleased to announce the commercial operation to the new container terminal in the North Bay of the Port of Veracruz on 1 July 2019. **Hutchison Ports ICAVE** offers the latest technology and modern facilities to port users, further strengthening its position as the major gateway in the Gulf of Mexico for trade between Mexico and Europe.

TOTAL CAPACITY

2.1

MILLION TEU

TOTAL AREA

73

HECTARES

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Expansion in ports and oil projects

Michele Labrut reports on the fast-expanding ports infrastructure and growing energy sector in Mexico, third largest country and one of the chief economic and political forces in Latin America.

President Andrés Manuel López Obrador began his six-year term in December last year, claiming his government will not do 'anything that goes against the people's will.' AMLO, as he is known by all Mexicans, announced a series of mega projects, though without funding.

However, economic growth is expected to more than halve this year from 2018. The risk of renewed trade tensions with the US, weaker global demand and national oil major Pemex's (Petróleos Mexicanos) ailing finances causing economists to forecast growth of only 0.8% in 2019, rising to 1.5% in 2020.

The General Coordination of Ports and Merchant Marine, Mexico's department overseeing the ports, is putting together a $1.2bn plan to expand Manzanillo – Mexico's largest port – in a nearby area known as the Lagoon of Cuyutlan, a project that will include construction of a new container terminal with capacity of 1.75m teu. The project is part of a five-year, $2.6bn public-private investment focusing on Manzanillo, Veracruz – the country's second largest port – and the port of Progreso.

Claudia Sanchez

Container cargo volumes at Mexican ports increased to 6.98m teu in 2018, up 9.7% on the 6.37m teu of the year before and have continued to grow during the first seven months of 2019 to 4.14m teu, up 7.4% year-on-year.

Claudia Sanchez, the secretary of communications and transport's general director of ports and the first woman designated in that position, says that a number of liquid terminals/off-shore platforms projects under the private-public partnership (70/30) scheme, have either began or are in the process of starting operations.

The largest project the $7.58bn-Fieldwood Energy/Petrobal venture to produce 104,000 barrels per day (b/d) in Campeche and the second most profitable oil field in Mexico. Italian ENI is to invest $7.52bn to produce 345m b/d of oil and 221,500cu ft of gas until 2038 with 90,000 b/d starting in Q2 2024.

And Hokchi Energy with an initial investment of $1.75bn up to $2.5bn, starts construction of an offshore platform and pipelines in October to begin operation and production of 35,000 b/d in April 2020 and 13m cu ft of gas per day in Dos Bocas, Tabasco.

The government puts in zero investment and risk but gets all production above 50% in all long-term contracts. Other oil terminals projects are underway in Tuxpan, Baja California, Altamira, Vera Cruz and Ensenada, Sanchez explains.

LNG supplier

Enestas is the largest private LNG company in Mexico and with an extensive LNG distribution network, has the capabilities to support the continued growth and investment in LNG bunkering infrastructure, development in North America, including in the Gulf of Mexico.

The company started operations distributing LNG in Mexico in 2016 and recently become the first from Latin America to join the industrywide SEA/LNG consortium promoting adoption of LNG as a marine fuel.

Enestas imports its LNG from the US by trucks and vessels, explains vp of sales Francisco Fuentes. Last year it imported 10m gallons from the Houston ship channel.

The company plans to 'leverage its wealth and breadth of expertise in relation to LNG – garnered from both road and ship transportation – to support the competitive global LNG value chain for cleaner maritime shipping by 2020,' says Fuentes. 'We are ready to supply LNG to cruise lines in Cozumel and Ensanadas when they need it.'

SSA Mexico sees growth all round

SSA Mexico, a subsidiary of the Seattle-based Carrix Group, operates several container, ro-ro and cruise terminals in the main ports of Mexico. These include Mexico's largest box terminal of Manzanillo with capacity of 2.1m teu, a specialised automobile facility at Lazaro Cardenas, and a multipurpose and cruise terminal in Acapulco on the Pacific coast, as well as the cruise terminals of Cozumel and Progreso, a ro-ro operation in Vera Cruz and a container terminal in Tuxpan on the Atlantic side.

According to a recent report by Carrix, the group became the biggest port operator in the Americas in 2018, moving 8m teu ahead of TIL/MSC (7.2m teu), APMT (6.6m teu), HPH (5.8m teu) and others.

'Cargo volume at SSA-Manzanillo reached 1.6m teu in 2018 and we're looking at 1.7m teu for 2019,' says SSA Mexico gm Manuel Fernandez.

Manuel Fernandez

'The challenge is to increase capacity,' he explains. 'We have bought two Super Post-Panamax cranes and are expecting two more in November. SSA Manzanillo has the largest cranage in Mexico.

The terminal has also developed a 6ha strategic bounded area with capacity of 6,000teu, which will 'save time for exporters and space before entering the terminal – a win-win situation,' he says, adding 'as we want to reduce the time containers stay in the terminal, we give premiums to customs agents who withdraw quickly their cargo.' In addition, a new 9ha external yard with static capacity of 16,000teu, rented for 20 years and located 1km from the terminal, will allow free pool storage for empties.

Meanwhile, the TEA-Lazaro Cardenas automobile terminal has proved a great success since opening in March 2018. The specialised terminal offers 500mtr of waterfront, two berthing positions dedicated to ro-ro vessels, 42ha of storage yard and vehicle services, serving as the centre of Mexico's vehicle handling operations as well as a hub for auto activity along the Pacific Coast. In 2018 it handled 305,000 units and 365,000 are forecast for this year, of which around 60% are imported and 40% exported.

'We are asking the Port Authority for a 4ha patio expansion for around 2,200 more vehicles,' says Fernandez, 'and would like to relocate a rail line which is passing through the vehicle storage area.'

Main clients of TEA-Lazaro Cardenas are from the US, with both Ford and General Motors having started regular calls there in the past two years, he adds.

Over on the Atlantic Coast SSA-Mexico operates a general cargo and automobile terminal at Vera Cruz. 'In 2018, it received a record 600,000 vehicles of which 70% are exports and 30% import, and 345,000 tonnes of general cargo and we expect a growth of 10% in all operations this year,' says Fernandez. 'Here again, we need to expand.' Acapulco meanwhile handled 48,600 autos in 2018, expecting 3% growth this year. ●

Tuxpan Port to add oil terminal

SSA's multipurpose Tuxpan terminal northeast of Mexico City is to add a $280m liquid terminal, Tuxpan International Fluids Terminal (TIFT), in a joint venture with Mexico's Monterra Energy, expected to enter operation in December of 2020, according to Tuxpan gm John Bressi.

The 15ha terminal will have a pipeline to the waterfront and 11 storage tanks for 2.2m barrels of gasoline, diesel and jet fuel.

John Bressi

'A second phase is already under design to add a second berth and additional storage since deep water berth and storage capacity are under high demand,' reports Bressi; '80% of the capacity is contracted long term to two European oil majors, who are the shippers of the cargo.'

Total, through its subsidiary Total Atlantic Trading Mexico, is to have the largest capacity in the new terminal, the company said in a statement, the increased storage allowing it to directly provide diesel and gasoline to its customers.

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Hutchison opens new terminal in Vera Cruz

Hutchison Ports' new ICAVE Specialised Container Terminal (TEC), an expanded version of its previous facility, began operations as part of the modernised Port of Veracruz on July 1, welcoming the arrival of a 6,500teu CMA CGM containership employed on the Gulf of Mexico and Europe trade.

'This is a great day for the country, for Veracruz and for Hutchison Ports,' said Jorge Lecona, Hutchison Ports ICAVE executive director for Mexico and Latin America.

Port of Vera Cruz now includes ICAVE and four other specialised terminals covering a total area of 1,113ha-626ha on land and 487ha in the water – thereby doubling the size of the previous port. A 4.3km breakwater, the largest in Latin America, was built, co-financed by the Port Administration Integral Vera Cruz (APIVER) and the Federal Government. With a total investment of around $1.6bn, 80% from private investors, the capacity of the port has nearly tripled and in Q1 2020 it will start operating three new bulk terminals.

'There isn´t any waiting time to call our [new] terminal,' says Lecona. 'We have added two new and state-of-the-art quay cranes, offering more productivity to the shipping lines. And the location of the new terminal is closer to our recently opened Empty Container Yard (ICAVE-ZAL) in the Logistics Activity Zone, adjacent to the New Port,' explains Lecona. 'We are also starting the implementation of a transactional Port Community System using blockchain technology.'

Under Phase One the new ICAVE container terminal has berth length of 700mtr with alongside depth of 15mtr and capacity of between 1.2m-1.5m teu, which is planned to increase to 2.1m-2.5m teu under Phase Two.

'In 2017 we handled 986,291teu, increasing 3% to 1,011,000teu last year,' reports Lecona. 'For 2019, we forecast growth of 3% to 1,039,000teu.' The terminal has kept its existing 10 service calls, successfully migrating them to the new terminal, he says, and added one more service.

TNG Shipyard: a 'strategic partner' for oil companies

Hutchison Ports TNG shipyard located in the port of Veracruz has more than 80 years of experience but is well abreast of modern technology demands.

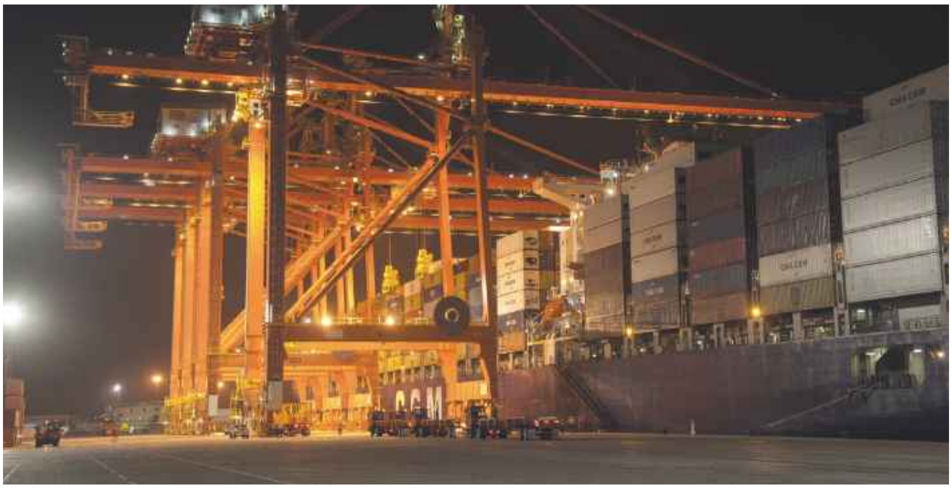
The last few years has been 'very productive,' says Jose Antonio Sardina Aguirre, gm of Hutchison Ports TNG, 'allowing us to stay on the cutting edge in our core business, the ship repair industry, and the metalworking industry. We participated in projects such as the manufacture of industrial chimneys, atmospheric tanks, plate rollers and piping systems of different diametres for various services.'

More recently, 'the installation of a new BWTS system on vessels seeking to comply with the MARPOL 73/78 standards, has been one of the most successful activities this year,' he continues, 'having been carried out on five vessels at a time, and we have more waiting.'

The yard has also participated in bidding for projects in the private offshore sector, 'both for metal fabrication, as well as for ship repair and maintenance,' adds Sardina Aguirre. 'It is a great opportunity. We have [already] received a large number of vessels from the Campeche offshore rig sector where national and foreign companies are reactivating. We see the discovery of new oil wells in this area as very positive.'

'With the reactivation of the energy industry, we have in the last years been continuously bidding for both Pemex and the private sector,' he concludes. 'Oil companies have begun to see TNG as a strategic partner.'

ICTSI's Contecon Manzanillo enjoys rapid growth



Cargo volumes at Contecon Manzanillo, an International Container Terminal Services, Inc (ICTSI) Group company, are growing fast, having climbed from 850,000teu in 2017 to 940,000teu last year and on track to reach about 1,025,000teu this year, says its ceo Fortino Landeros.

'More than hitting our targets, our results demonstrate Contecon Manzanillo's capability to continuously outpace market growth, and our readiness in building a strategic gateway for transpacific trade – making our terminal one of the fastest growing gateways in the Americas,' he says.

'We need to expand and rise capacity at the terminal and are investing $125m, adding to the initial $350m, in purchase of equipment with two Super-Post-Panamax and two Post-Panamax cranes.' The terminal is also expanding its container yard by 18ha to 60ha and the waterfront pier by 180mtr to 900mtr, which will increase capacity from 1.2m teu to 1.6m teu by 2020, 'giving substantial flexibility to absorb the projected growth in cargo volume at Manzanillo.'

A second phase will see expansion of Contecon's yards and entry and exit gates, including investments in cutting-edge technology and training of personnel.

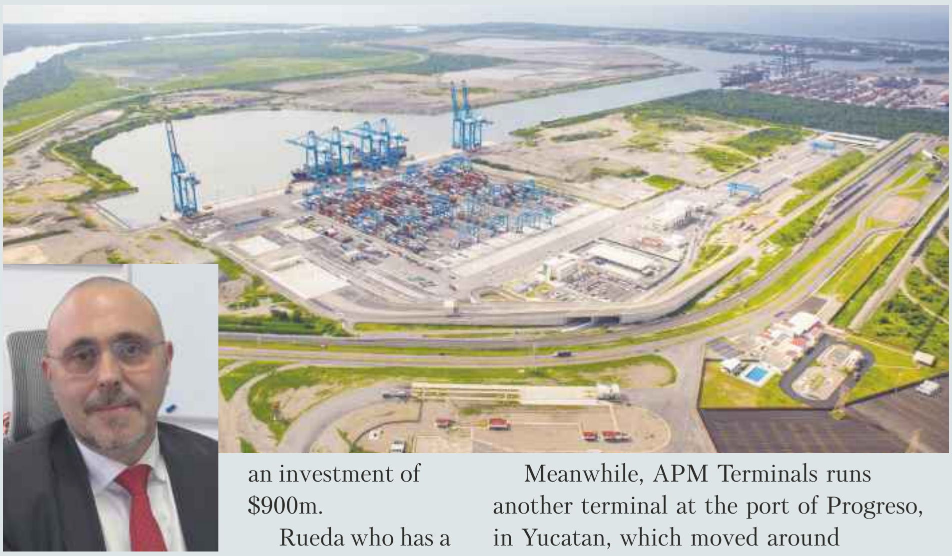
Contecon Manzanillo clients include the likes of MSC, CMA CGM and COSCO. 'We continue to work hand-in-hand with our customers to improve the efficiency of our operations and processes,' says Landeros.

But the ceo warns of an impending slowdown because of 'external effects of the US-China trade war and Mexico's new economic policies,' with car sales in Mexico already having fallen 15.5% in the first months of 2019 with the inevitable knock-on effect of a decline in auto component imports from Asia.

Fortino Landeros

'If the new [US-Mexico-Canada] trade agreement is not approved next year, it could have a critical impact,' he says. 'I hope it can be signed before year-end, if not, it will affect our growth. China is also a factor impacting our imports and exports.'

APM Terminals' Lazaro Cardenas offers semi-automation



Inaugurated in April 2017 by Mexico's former President and the Danish Prime Minister, APM Terminals Lazaro Cardenas is the first semi-automated container terminal in Mexico.

Under its completed Phase One the terminal covers 49ha with a 750mtr quay and alongside depth of 16.5mtr, deep enough to accommodate the latest generation of ultra-large containerships, It is equipped with seven ship-to-shore cranes, 342 reefer plugs and offers automated gate services.

This year's forecast volumes of 790,000teu represent only a modest gain from the 776,802teu recorded in 2018 'since the market is depressed by the global economy's slow-down and a reduction of domestic expectations due to the change of government,' explains APMT Lazaro Cardenas gm Jose Rueda. The Pacific coast deepwater terminal currently has a capacity of 1.2m teu which could increase to 4m teu in 2030 when fully built-out with an investment of $900m.

Jose Rueda

Rueda who has a 20-year-experience in the maritime sector, hopes the USMCA Trade Agreement between the US, Canada and Mexico will be signed sooner or later. 'Obviously the sooner, the better since it will boost Mexico's economy,' he comments. 'We have seen transhipment diminish a little and it is a concern.'

Meanwhile, APM Terminals runs another terminal at the port of Progreso, in Yucatan, which moved around 120,000teu last year. AMPT, whose main customer is Linea Peninsular, announced it will expand the terminal, increasing container yard capacity by 20%, add two RTGs and launch a digital client portal to streamline transactional efficiency. Progreso connects the Yucatan region to Europe and the US market.

Dragamex moves into project engineering

Founded in Mexico 25 years ago and today fully owned by Dutch operator Boskalis International, Dragamex is the most experienced dredging company in the region having completed over 260 projects in Mexico, Latin America and the Caribbean. With Boskalis' backing it has also built up formidable technical and engineering expertise that it is now beginning to deploy more widely across other projects.

The dredging sector is going through difficult times, explains Boskalis gm for Mexico, Central America and the Caribbean David Vergara. 'We finished our last big project last year, in September, which was deepening Vera Cruz port to 16mtr. In association with Jan De Nul we moved 18m cu mtr,' he adds.

President Lopez Obrador has earmarked a number of large development projects in his southeastern home state of Tabasco and the Atlantic Pacific corridor where Dragamex feels it may be able to deploy its engineering skills – such as a new airport, Maya train, and an $8bn oil refinery – but as yet there is no public funding allocated.


David Vergara

'So, we are shifting to a new developer role providing equity to make things happen with port operators,' says Vergara.

Right now, Boskalis is carrying out studies for a project potentially worth up to $1bn, in La Frontera in the state of Tabasco. The greenfield venture is to create a 300ha offshore-based logistics area in association with the state of Tabasco and Mexican logistics company PetroPorts. The region has huge oil & gas projects but at present no dedicated logistics hub to stock supplies, pipelines and so forth.

An agreement was signed four months ago with the state of Tabasco for the land and 'we are at the pre-feasibility stage of studies and will decide later if proceeding with the project, how and when,' he says. Most of the big oil companies have secured contracts for oil & gas explorations and there are big opportunities as well in Yucatan.

Phase One of the project will be to build a $100m oil terminal. 'We are at a very early stage of our feasibility studies,' says Vergara, 'but it is quite promising.'

SAAM Towage looks to offshore sector

SAAM Towage Mexico today operates a total of 18 tugs that provide towing services along the Gulf of Mexico and Pacific Coast, based in the ports of Lazaro Cardena, Altamira, Tampico, Tuxpan, and Veracruz.

To accommodate the growing needs of local ports it has continuously upgraded and modernised its fleet over more than 20 years to meet market demands, in 2003 further expanding to provide offshore services for Mexico's state-owned petroleum company Pemex.

Today its fleet collectively comprises more than 880 tonnes of bollard pull. In the Campeche zone, five tugs are dedicated to offshore business, thee tugs are on long-term contracts for Pemex and two tugs work on spot, says SAAM Towage ceo Cristian Rojas. The vessels are all modern ASD tugs ranging from 70 tonnes to 90 tonnes bollard pull, he adds.

'Tug operations are unique in each port as well as the competition amongst tug companies,' says Rojas. 'Modern and efficient tugs make the difference.'

'Since we entered the tug business in Mexico, tenders for the ports and tug operations have been transparent,' he continues. 'We want to continue growing our presence, in particular in the ports, but new companies are coming in.'

Regarding the offshore sector Rojas notes that the market fell off some four years ago, following the slump in oil prices, and remains 'quite complex and slow' for Pemex and other local players, with international investments proving the real 'movers' in the industry, he says, 'in particular in the Tabasco and Campeche regions.'

However, reforms to the energy sector carried out during the previous administration have opened exploration and production to the private sector, he notes, meaning up to $30bn worth of investment could pour into Mexican oil & gas exploration over the next five years, he confidently predicts, boosting production and reviving a dormant industry.

The VisionMaster networked bridge solution from Northrop Grumman Sperry Marine

Navigation gains intelligence

Technical editor **Bill Thomson** looks at latest smart advances in bridge navigation, electronics and satellite communications.

Modern ships are becoming more 'connected'. With electronics controlling just about every onboard function the computer has largely taken over from manual paperwork. And, rather than having separate computers for each system, the systems have become linked up in a ship's network.

Although manual systems remain, their purpose is now more of a backup. The chart table has been replaced by ECDIS (Electronic Chart Display Information Systems), while the onboard computer network is taking over from separate machinery control rooms, loading computers etc. as the main means of control, monitoring and recording.

Sperry Marine's Seatrade Award-winning VisionMaster Net is claimed to be the first bridge radar to securely connect ship navigation systems to the wider vessel network and to the shore. Ship operators can use the system to access bridge radar information from locations around the vessel and securely transfer data to the shoreside for remote support and assistance.

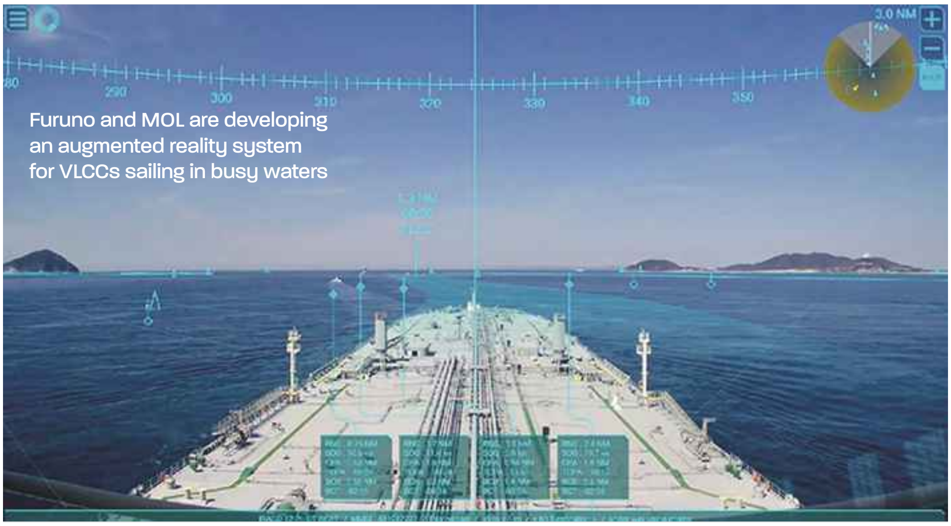
Sperry's latest high-resolution radar system, SeaGuard, is being marketed at the large ship market. It was originally designed as a naval surveillance radar and scans for targets almost simultaneously across six different frequencies.

'Sperry Marine is proud to include some of the industry's most innovative operators as long-term clients and we are supporting them with a range of products and services that move the navigation bridge into the digital, connected era,' said Pascal Göllnitz, product manager, Integrated Bridge Systems, Northrop Grumman Sperry Marine.

Furuno Electric and Japanese shipping company Mitsui OSK Lines (MOL) have jointly developed an Augmented Reality (AR) navigation system for VLCCs, to provide visual support to crewmembers during watch-keeping and ship operations by using AR technology to superimpose real-time video imagery and voyage information.

The AR System integrates information from the AIS, radar and ECDIS with real-time video images from the bridge camera. It allows mariners, at a glance, to ensure that they are on a safe course, and alerts them to nearby vessels that could pose a risk and other potential hazards in congested waters.

The Nacos Platinum integrated bridge from Wärtsilä



Furuno and MOL are developing an augmented reality system for VLCCs sailing in busy waters

Marlink and Intelsat have recently extended their partnership

The industry trend towards the 'one stop shop' for all ship systems has helped the push towards more integration and networking. Several of the major names, through acquisitions and mergers, find themselves able to offer a single-source supply. Wärtsilä, for example, includes the Nacos Platinum navigation system in its portfolio, alongside the Transas integrated safety, navigation and ship operations solutions and Eniram's energy management products.

A ro-pax ferry newbuild for Wasaline under construction at Rauma Marine Constructions in Finland, will be fitted with a complete set of Wärtsilä products. In addition to the dual-fuel engines, hybrid propulsion, LNG/Biogas fuel system and power management systems, the ship will use the Nacos Platinum navigation and communication system.

Nacos Platinum represents a combination of control systems for navigation, automation, power and propulsion, as well as the Wärtsilä Data Bridge platform. By integrating all these functions into a single system, the vessel can be navigated, controlled, and monitored from multifunction workstations in various onboard positions. The Wärtsilä Data Bridge solution enables advanced Wärtsilä data analytics optimised by Eniram, offering potential for enhancing the vessel's efficiency.

With ship systems becoming increasingly connected, Wärtsilä says its competence in advanced solutions is playing an important role in the development of intelligent vessels, with the Nacos Platinum system a key ingredient in the fully connected vessel concept.

'Wärtsilä's Smart Marine approach is to develop the technologies that enable greater efficiency and better environmental performance, and that approach is perfectly defined with our solutions for this vessel. The Nacos Platinum system will further enhance the ship's operational and navigational efficiency,' said Henrik Wilhelms, director, Offshore & Special vessels, Wärtsilä Marine.

The Norwegian Kongsberg Group has shown a similar strategy, its most notable move being the acquisition of the former Rolls-Royce Commercial Marine product range. With both companies at the forefront of autonomous shipping technology, there is an obvious synergy in the 'connected ship' solutions which are finding their way into the industry and paving the way for the possible unmanned ship of the future.

According to Kongsberg ceo Geir Håøy: 'The acquisition strengthens our global presence and will give increased sales and service volumes. Kongsberg is a world leader within automation, navigation and control systems, whilst Rolls-Royce Commercial Marine is complementary with its deliveries of propellers, propulsion systems, handling systems and ship design. Both companies hold leading positions within digitalisation, ship intelligence and concepts for autonomy. By bringing together this we are positioning us as a significant strategic supplier of complete solutions for the future maritime industry.'

Software for connected ships

A number of companies offer software packages that exchange navigational data between ship and shore, making it simpler for on-shore managers to monitor their fleets, keep data up to date, and ensure ships are operated efficiently and in compliance with the multitude of regulations.

Voyager from Global Navigation Solutions is a complete back-of-bridge navigation planning and execution system, with a range of functionality designed to support smarter navigation. Its software applications and content range from navigation to voyage optimisation to weather and non-navigation related services, all designed to help shipping companies enhance safety, improve efficiency and reduce costs.

The latest upgrade includes a MARPOL compliance tool, linked to the navigation system, and making it easier for users to manage MARPOL compliance with designated Special Areas, Emission Control Areas and Particularly Sensitive Sea Areas. The feature gives users the ability to view up to date areas under MARPOL as an overlay on either a map or an ENC from within Voyager. The route planning function enables users to quickly and easily identify and display intersecting special areas along with the relevant entry and exit points and zone entry times.

Voyager includes cyber-security solutions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KVH Watch from KVH Industries offers an affordable IoT system

Intellian's C700 terminal offers fast pole-to-pole coverage over the Iridium Certus network

to protect customers from the inherent risks of increased interconnection between ship and shore. These include aid the process of transferring ENCs, ENC updates, permits and route files from the back of bridge computer to the ECDIS while, at the same time, helping to protect against transfer of malware.

ChartCo's OneOcean provides a single platform which contains applications for voyage planning, environmental compliance, regulations management – including flag state, IMO, ILO and EU rules – and a documentation management app. The Passage Manger includes voyage planning tools, with weather and route optimisation, adhering to traffic separation schemes. It integrates with ECDIS to produce compliant passage plans, which can easily be adapted for multiple port calls.

'ChartCo is committed to enabling crews and management companies to fulfil their compliance and navigational mandates simply and effectively,' says ceo Martin Taylor.

Communications – the key to connectivity

Of course, sharing data is impossible without reliable, cost-effective communications networks. With large amounts of data being transferred from ship to shore and vice versa, pressure on maritime satellite systems has increased. Previously, just large cruise ships and specialised vessels such as survey ships needed more than basic data transfer, but now the need has spread across all sectors.

The growth of expedition cruising and opening up Arctic passages such as the Northern Sea Route to commercial shipping, has led to an expansion of the networks to improve communications in the polar regions, where satellite coverage was historically poor to non-existent.

Inmarsat is expanding its satellite coverage by tripling the number of its GX satellites by 2023, which will enhance coverage of its Ka-band and L-band services, particularly in the Arctic region. 'The investment in the new satellites represents the latest milestone for Fleet Xpress, ensuring a significant advancement in the global capabilities, capacity and agility of the service for current and future Inmarsat customers,' says Inmarsat svp Peter Broadhurst.

Additionally, Inmarsat's Fleet Data has received Approval in Principle (AiP) from Bureau Veritas, which Inmarsat says represents a major milestone for its secure sensor data and Internet of Things (IoT) maritime platform.

IoT is a much-used phrase in technological circles, but basically describes the move towards increased connectivity onboard. Satcoms antenna and connectivity provider KVH Industries is targeting sip operators and equipment suppliers with its KVH Watch IoT range. It provides secure connectivity for remote monitoring and real-time intervention, with no capital cost and a single monthly fee, with onboard sensor data transmitted over dedicated ship-to-shore bandwidth, and remote access, video and chat for product support and troubleshooting.

'IoT is essential for maintaining and optimising complex equipment at sea, but until now, equipment manufacturers have lacked an affordable VSAT IoT solution,' says Martin Kits van Heyningen, ceo of KVH. 'We followed the successful business model we established with AgilePlans Connectivity as a Service to now offer KVH Watch IoT Connectivity as a Service for one monthly subscription fee.'

Marlink and Intelsat have extended their 2014 partnership agreement for the provision of global maritime broadband services. The new multi-year agreement will deliver additional throughput to vessels via multi-layer VSAT coverage, providing flexible, reliable, always-on high speed connectivity.

'Our partnership is a great example of how pairing Intelsat's robust, global communications infrastructure with Marlink's diverse portfolio of communications solutions results in the ultimate connectivity experience at sea,' said Samer Halawi, Intelsat evp.

'The demand for dependable, high-quality VSAT connectivity in the maritime sector has increased significantly in recent years,' commented Erik Ceuppens, ceo Marlink Group.

Meanwhile, Intellian's C700 terminal is the latest hardware to be added to the Iridium Certus L-band satcom system. The C700 will enable applications including, bridge and crew communications, situational awareness and connected ship IoT capabilities. The Certus network is expected to be GMDSS approved by the time the C700 reaches the market in early 2020. The C700 is claimed to offer the fastest L-band broadband with pole-to-pole coverage, even in adverse weather conditions. ●

PHOTO: FLEET MANAGEMENT

Technology can help seafarers work better together

Cloud use assists crew management

The following article has been submitted by **Alexander Buchmann**, managing director of Hanseaticsoft.

The shipping industry is facing challenging times. The growth in fleet volumes at a time of global economic slowdown has resulted in excess supply and falling demand.

Unable to control external factors, many shipping companies are focusing on improving their internal operations including their commercial terms, their operations and fleet to strengthen their business.

One of the ways they are doing this is by embracing technology to improve efficiency and streamline processes. In a shipping company huge amounts of data and information are created daily, but without the help of technology it is nearly impossible to connect the dots and gain further insights.

One area where this is having a significant impact is in crew management. Cloud-based solutions for example are enabling companies to optimise crew management by streamlining all crew-related processes in one central place.

A new report from researchers at Solent University entitled, 'The Effective Crew Project' looked at the benefits and challenges of implementing stable and fluid crews within the merchant shipping industry – an area where technology is essential to successfully evaluate the effectiveness of a crewing strategy.

Stable crewing, as defined by the researchers, is where the same top four senior officers (captain, chief officer, chief engineer and second engineer) operate on a back-to-back basis and return to the same vessel for several voyages, with all four joining and leaving the vessel at the same time.

Sometimes stable crewing can relate to crew members other than, or as well as, the top four returning to the ship for more than one voyage. More usually, companies operate a fluid system, where senior officers are assigned to any appropriate vessel and will sail with different senior officers every trip.

Researchers at Solent University found that stable crewing results in improved accountability and responsibility leading to better vessel maintenance, reduced maintenance costs and shorter handover times.

Stable crewing also promotes trust and good working relations, higher retention rates and increased capacity for on the job learning which in turn leads to improved inspection results, reduced training and recruitment and improved operational costs.

However, the report concludes that good leadership and management skills are fundamental, and companies need to collect more reliable data in order to better inform their crewing strategies. This is something that many companies have lacked in the past.

To successfully evaluate the effectiveness of a crewing strategy, consistent data and metrics are essential as without these it is difficult to accurately measure cost savings. Shipping companies can evaluate crewing strategies more effectively by using cloud software, which holds data and metrics centrally.

By reviewing information in the system about each seafarer's experience and their key skills, companies can select people who will complement each other as a team. Some advanced solutions even offer the option to create pools of seafarers with specific skills or that work very well together to use for further planning.

People are the most valuable asset for any shipping company and cloud technology has the power to transform crew management to improve safety outcomes, crew wellbeing and long-term financial performance.

Another benefit of cloud technology is that it is straightforward and easy to implement, plus staff don't need to have advanced IT skills as ship management cloud software is mostly intuitive and requires minimal training. For those wary of change or who have concerns over the competency of their crew when it comes to technology, the cloud can be a great solution.

The cloud is having a significant impact on the way companies operate and will in the future by helping automate and improve tasks, as well as complying with regulations. Even staff wellbeing can be addressed using cloud applications, as crew shifts and rest periods can be tracked to ensure companies comply with industry guidelines and standards.

By adopting cloud technology shipping companies are able to implement smarter, faster and more effective processes to streamline their operations and remain competitive. This is crucial at a time when economic conditions remain tough. ●

Scrubber technology and the 2020 rush

The following article has been submitted by **Nick Confuorto**, coo and president of CR Ocean Engineering.

When [MARPOL] Annex VI was initially being discussed at IMO, I thought that of all the options available to shipping, the most reliable and the most economical alternative for sulfur reduction will be the exhaust gas scrubbing system. At that time, I decided to make a switch from land-based scrubbing to CR Ocean Engineering, a leading supplier of exhaust gas cleaning systems (scrubbers) and one of the most experienced scrubbing systems suppliers in the world with roots dating back to 1917.

Years later and with about 4000 scrubbers in the industry's rearview mirror, my belief is still very much valid. Although the 2015 ECA milestone was somewhat disappointing, the 2019 preparation for 2020 has met the expectations of the many scrubber companies.

Scrubbers work by physically and chemically reducing the sulfur dioxide emissions by spraying seawater over the exhaust gas in a scrubber tower. The amount of SO2 reduction is dependent on various design variables such as alkalinity, residence time and gas to liquid contact. Each company has its proprietary way of using these variables to achieve the required SO2 reduction. One must also mention that in addition to SO2 the technology will also result in lower particulate, lower NOx, lower PAH and lower global CO2.

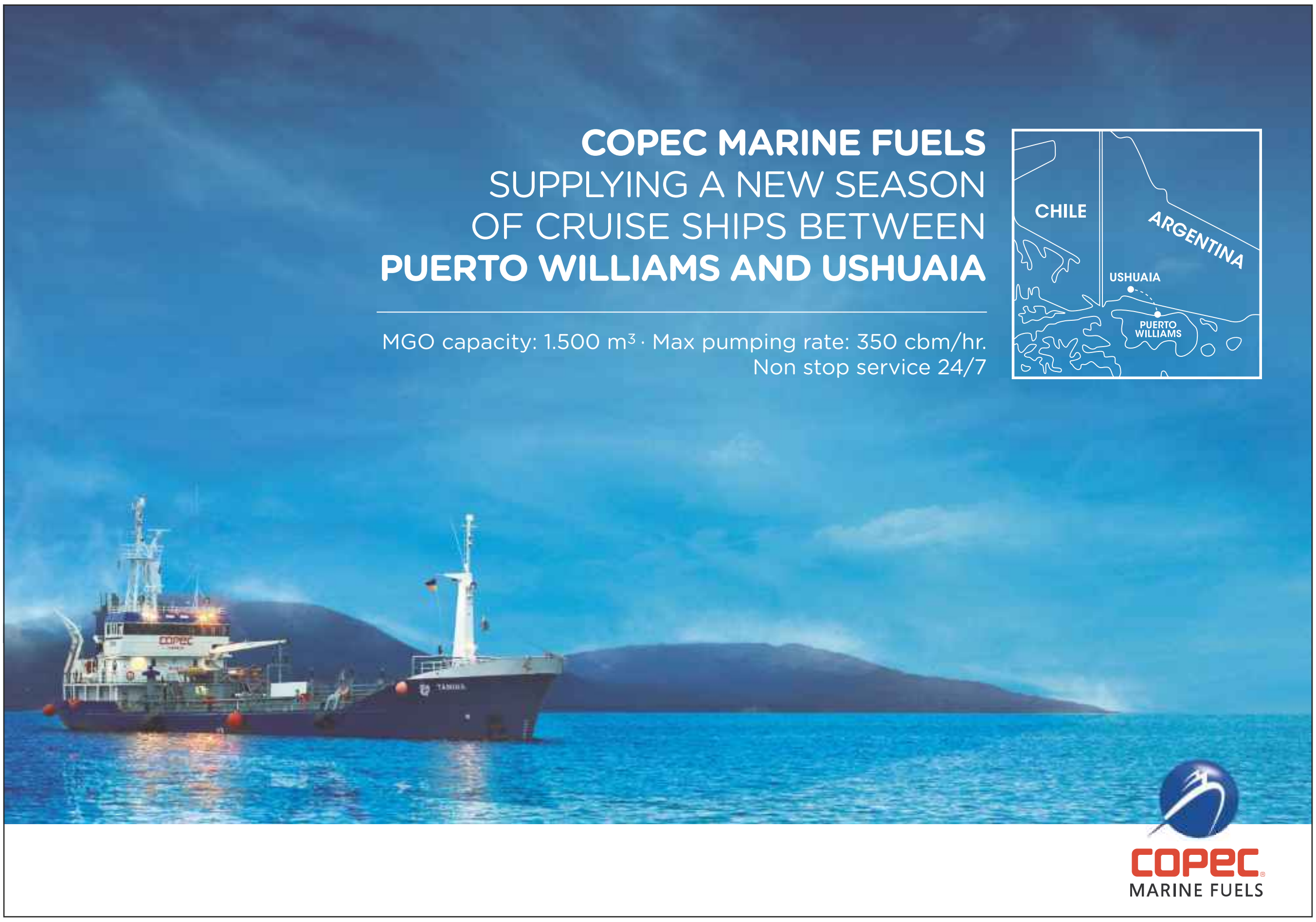
In most cases the tower is located in the existing ship's funnel/stack. But several designs are available that will allow installations outside of the stacks. The reaction of the SO2 with the seawater converts the SO2 pollutant into a safe sulfate product that is already extensively present in the sea. The many studies conducted to date have shown that this discharge is safe for the sea and the sea life even if discharged in concentrated areas.

Of course, the long-term success of the technology will not be measured by its environmental contributions but rather by the economic benefits it can provide to the shipowner. That will all depend on fuel pricing because the scrubber economics depend on the differential pricing between high and low sulfur fuels.

The majority of the installed scrubbers to date have been justified based on a \$150-\$200 per ton differential. However, indications are that this differential will be rising significantly.

For Q1 2020 that differential is starting to converge at more than \$400 per ton of fuel. This would mean that a scrubber project on a large container ship using about 200 tons per day of fuel, could be paid back in only a few months. I don't believe there is any other investment that can provide such a quick payback.

At some point in the future some other more economical technology will emerge or lower cost compliant fuel will be sold. But for now, scrubbers are available, are economical and work well. I believe that over the next several years we will see scrubbing systems being installed on many types of ships and they will become more widely accepted because they will prove their benefits to even the most vocal opponents. ●



Advertising Index

Rapid advancement for LNG carriers

As the market for liquefied natural gas continues to expand, with big orders for LNG carriers in prospect and small-scale LNG taking off, Bureau Veritas looks at how vessel technology is fast evolving.

LNG carriers are evolving rapidly, with innovative containment systems, propulsion methods and re-liquefaction systems responding to charterers' and shipowners' changing needs.

The seaborne carriage of LNG has developed rapidly in recent years, thanks to a series of technical innovations. Today, many in-service LNG carriers benefit from new technologies such as evolved membrane containment systems, new engine technology and, for icebreaking ships, podded propulsion systems.

However, with new equipment comes new challenges. For owners and yards, the biggest concern is ensuring strong global architecture when building a new carrier. This means balancing the right containment and propulsion systems with the corresponding supporting equipment.

The operating profile of modern LNG carriers has changed – flexibility is now more important, with ships calling at different loading and offloading terminals, and requiring high fuel and energy efficiency. Where early LNG carriers were contracted for long periods (typically 20-25 years) and predetermined routes, modern vessels are chartered for relatively short periods and may travel numerous and changing routes. This requires greater flexibility in terms of ship size, onboard equipment, propulsion systems, and cargo management.

As early prototypes of containment systems developed, two dominant families rapidly emerged: the French membrane-type containment systems developed by Gaztransport and by Technigaz, and the self-supporting type 'B' containment systems developed by Norwegian company Moss Maritime and Japanese company IHI Group. Today, the merger of Gaztransport and Technigaz – now known as GTT – dominates the world of LNG containment systems, with variants of the NO96 and Mark III membrane systems installed in most newbuilds.

Increasingly, GTT has been offering more efficient variants of its Mark III and NO96 systems, approved by Bureau Veritas, that reduce daily boil-off rate (BOR). The lowest BOR, offered by GTT's Mark III Flex+ system, is now 0.07% of the tank volume per day.

Fuel flexibility

Meanwhile, new propulsion methods have been developed to complement the design of LNG carriers. Steam turbine ships evolved into dual-fuel diesel electric (DFDE) ships, and from there into two-stroke dual-fuel powered vessels. Two-stroke engines offer major propulsive efficiency, and the dual-fuel capacity allows for the use of different kinds of fuels. This offers much needed flexibility for LNG carriers and improves cost-optimisation for shipowners.

The demand for fuel flexibility has driven leading companies such as Wärtsilä, Cryostar, Air Liquide and Babcock to develop a second wave of re-liquefaction systems, which are being installed on most new LNG carrier projects today. By re-liquefying LNG boil-off gas, ships can arrive at port with more of their cargo intact, providing greater flexibility and making this technology attractive to charterers and shipowners.

The search for optimal systems continues as technology advances. Key issues remain the relationship between propulsion and containment systems, the related question of re-liquefaction, and how to balance both elements to support the development of safe, efficient LNG carrier designs.

At Bureau Veritas, our experts focus on helping clients find the right balance for their vessels and address the related safety, regulatory and risk aspects. We help stakeholders make the best safety and commercial decisions based on critical technical insight, supporting shipowners and shipyards worldwide.

A notable recent example of innovative problem solving is the series of 15 Arctic-capable, ice-breaking LNG tankers built for the Yamal LNG project, dual-classed by Bureau Veritas and the Russian Maritime Register of Shipping (RS). Work involved developing an entirely new class of LNG carrier that can be operated year-round in second-year ice with old ice inclusions with a thickness up to 2.5mtr. Classed to Bureau Veritas notation COLD, this ensures the hull and equipment are winterised, and can continue to operate in temperatures as low as -45ºC. ●

October saw the untimely passing of **Jonathan ('Sam') Ignarski**, aged 64, who had spent 16 years working for Thomas Miller in the insurance industry, first in London and later in Hong Kong, before launching a second career as a maritime journalist, publishing the weekly e-zine Bow Wave.

Former colleague David Martin-Clark writes: 'Sam and I worked closely together for almost twenty years, as colleagues in the management and development of the Through Transport ("TT") Club, particularly when we were both in Hong Kong in the late nineties, when he led the Asia Pacific team.

'Having learnt Mandarin at Cambridge, he was at ease and confident among Chinese people – and loved Chinese food. He was a larger-than-life figure, imposing and charismatic, a lateral thinker and a born contrarian, with a keen sense of humour.

'I had high regard for him and learned to respect his intelligence and his commitment to the cause... he was always interesting and often inspirational.'

Ignarski was a valued contributor to this magazine for several years, writing a hugely popular series of Shipping Stereotypes under the pen name Bevis Marks – after a street name in the City of London where he began his career.

As a tribute to someone described by Seatrade's Asia editor of the time as 'one of shipping's greatest chroniclers,' below we re-publish one of Sami Ignarski's pieces relating to his beloved China.

Shipping stereotypes

BC Wang: the CFO. By **Bevis Marks**. Drawing by **David Parkins**

Rare as hen's teeth is BC Wang. Born in 1944 to leftist intellectual parents well in with rising CP regime and named after an impeccably anarcho-leftist novelist Ba Chin, he managed to acquire his degree in international trade just before the universities closed during the great proletarian cultural revolution in the late 1960s. After those rather beastly years there he stood, proper degree, proper foreign languages, and an inkling of the ways of the future. His early years keeping the books for the Tianjin part of the Great China Container Line, prepared him for a bigger role on the numbers side in the head office in Beijing. His rise and rise, as is common for accountants in shipping companies, went mostly unremarked during the unremitting office politics of the company. For over a decade and a half the company went through successive rounds of centralisation and regionalisation, a common tactic in large Chinese organisations. You move them round and about and try and keep the personal empires of managers under some sort of pressure.

BC crossed the magic line the year of opening under Teng Xiao Ping when he and a dozen other accountants were sent to undergo training under the aegis of a leading international accountancy company overseas which was anxious to get in with the new brooms in Beijing. So there he sat in the training rooms in 1989, aged 45, being taken through the basics of shipping accounting – subjects he had mastered many years before under his own steam and using his own connections in the industry. But it was a key passage all the same. The members on that course are a kind of who's who of heavy hitters in China these days.

So how to describe BC Wang – he speaks good idiomatic English – a legacy of years of listening to radio and spending time in the HK SAR. He dresses in modern emerging middle class style – no item of clothing is unbadged – a Mont Blanc pen of high cost is wielded and displayed at all times, and a similarly prestigious watch is proudly displayed. The overall effect is perhaps a little bland – he dislikes wearing a suit and prefers the clubhouse golfer look. In his cupboard his favourite suits stay mostly unworn – they are the silk Sun Yat Sen suits with the four pockets and the elegant collars which he ordered up during the late 1980s with the easy cash he was beginning to earn. ...

He is spoken of these days as one of the rising stars of the container industry. But few people really know him and his connections to the very top are shrouded in mystery.

Perhaps they go back a generation to a less commercial era, when revolutionaries pledged themselves to more than Gaap Accounting. He is patriotic and he is very very patient. Wonder what he would be like as a general manager, they ask, at home and increasingly abroad. ●

With acknowledgements to 'Social stereotypes' in the UK's Daily Telegraph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