



# Newsletter

January 31<sup>st</sup> 2019

*Link road, rail, sea!*

Centro Internazionale Studi Containers

**YEAR XXXVII**  
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***January 31<sup>st</sup> 2019***

The content of the C.I.S.Co. Newsletter is also published in the newspaper "Informare" accessible on the Internet site <http://www.informare.it>

## C.I.S.C.O. NEWS

### BIC NEW BOARD-MEMBER AND OFFICER APPOINTMENTS

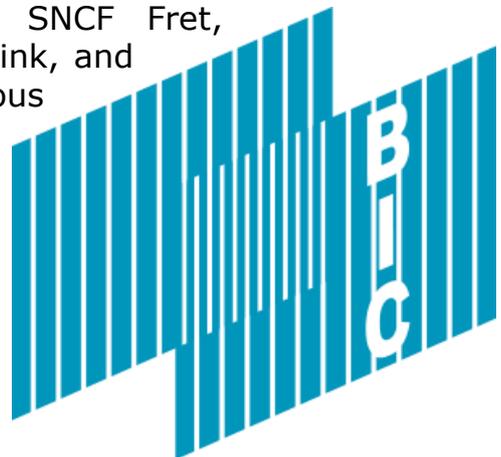
The BIC (Bureau International des Containers et du Transport Intermodal) is pleased to announce the following recent changes to its Board of Directors.

- Mr. Armand Toubol has been appointed Treasurer of the BIC, effective 25 October 2018.

A longtime board member of the BIC, Mr. Toubol has served in a number of executive positions including Director of SNCF Fret, Chairman and CEO of CNC, and CEO of Sealink, and has held board positions at many prestigious firms in the transportation sector.

Mr. Toubol is a 1966 graduate of the prestigious Ecole Polytechnique.

He replaces Mr. Jean-François Petiaux, who held the role of Treasurer for the previous nine years.



- Mr. Giordano Bruno Guerrini was re-elected as Chairman of the Board of Directors for a period of 3 years.

A licensed ships agent, Mr. Guerrini has over 45 years' experience in the transportation field and is a veteran of Hapag Lloyd AG, having served in a number of executive roles including Senior Vice President Operations.

Mr. Guerrini serves as Secretary General of the Italian association C.I.S.Co., Centro Internazionale Studi Containers and as Director of Assiterminal, an association of private marine and inland terminal operators in Italy.

- Ms. Lucia Cavallo of Bureau Veritas was appointed to the Board of Directors.

A 12-year veteran of Bureau Veritas, Ms. Cavallo currently serves as Transport and Logistic Services Manager.

- Also serving on the BIC Board of Directors: Mr. Jorn Heerulff (Vice-Chairman) of BoxID Nordic, Mr. Clemens Bochynek of SGKV, Mr. Philippe Berard of CMA-CGM Group, Mr. Michael Heinemann of DB Intermodal Services GmbH, Ms.

Sandra Gehenot of the International Union of Railways (UIC), Mr. Philippe Lasserre of Touax Group, Mr. Jean-François Petiaux of JFP Consulting.

### *About the BIC*

Founded under the auspices of the International Chamber of Commerce in 1933 as a neutral, non-profit, international organization, the BIC today has over 2300 members in 125 countries.

The BIC has played an important role in the growth of containerization, with its long-established and active role in the development and maintenance of industry standards.

Publisher of the BIC Code Register since 1970, the BIC was appointed by the International Organization for Standardization (ISO) in 1972 as the industry's global container prefix registry, a role further endorsed by international customs conventions.

Since 2013 the BIC has also operated the Global ACEP Database, under the guidance of the IMO.

In 2016, the BIC launched the BoxTech Global Container Database (formerly known as the Technical Characteristics Database) to help improve efficiency and safety in the supply chain, and to help simplify compliance with SOLAS container weight reporting requirements.

Today, the BIC code is the "international calling card" of nearly every container in international trade, allowing for proper identification and facilitating the crossing of borders without delay.

With a mission to promote safety, security, standardization and sustainability in container transportation, the BIC enables professional dialogue amongst its members, standards bodies, governments and other industry organizations.

The BIC holds official observer status as an NGO at both the International Maritime Organization (IMO) and the World Customs Organization (WCO) and contributes regularly as an observer to the United Nations Economic Commission for Europe (UNECE) and other organizations.

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*(from: bic-code.org, January 18<sup>th</sup> 2019)*

## PORTS AND TERMINALS

### **PORT OF BARCELONA IMPLEMENTS ALTERNATIVE FUEL USE TO IMPROVE AIR QUALITY**

With support from the European Union's CEF Program, Port of Barcelona partners with energy suppliers, ship owner-operators, port equipment manufacturers and technological innovators to pilot and measure the efficiency of LNG on land and at sea as an alternative fuel source.

The aim is to reduce NOx, SO2 and PM emissions using alternative fuels throughout the ports nautical and intermodal chains for cargo ships, ferries and cruise ships.

The Port of Barcelona's energy transition towards a more environment-friendly business model is gaining momentum, as it completes pilot operations using LNG and CNG as alternative fuels throughout its nautical and intermodal supply chains.

The plan was introduced by the Port Authority as part of the Metropolitan region's action plan to improve air quality, Horizon 2020, passed by the Catalan government in 2014, as well as with the Air Quality Improvement Plan of Barcelona 2015-2018, by the City Council.

"The Port of Barcelona's Air Quality Improvement Plan focuses mainly on measures to reduce emissions from vessels, wheeled traffic, machinery, bulk cargo operations and infrastructure works.

The plan also encourages rail and short sea alternatives to road cargo transport whilst improving sustainable mobility using either gas or electrification in the port" comments Jordi Vila who is Environmental Manager of the Port of Barcelona.

The Port of Barcelona has the advantage of ample availability of liquefied natural gas (LNG) and compressed natural gas (CNG) due to the location of Europe's first ever main regasification plant at the port, which is owned and run by Enagás.

With the upcoming IMO 2020 sulfur fuel regulation for ships, the Port of Barcelona believes in the importance of establishing LNG and CNG as alternative and more sustainable fuels compared with the conventional oil-based fuels that tend to be used at sea as well as on land.

LNG eliminates emissions of sulphur dioxide (SO<sub>2</sub>) and particulate matter (PM<sub>10</sub>) as well as reducing nitrogen oxide emissions (NO<sub>x</sub>) which are 85% lower than with diesel and fuel oil.

### *Retrofitting trucks...*

On land, with the REport project involving eleven partners, twenty-six trucks transporting containers between the port and the Metropolitan area have been converted to a dual-fuel system.

Twenty-five of these can run on compressed natural gas (CNG) with one able to operate on liquified natural gas (LNG) by mid-June of last year.



A 12-month study has been initiated last summer to monitor the positive impact this change has on emissions.

In the port area it is estimated that around 2,200 trucks transport goods to various destinations.

José Alberto Carbonell, General Manager of the Port of Barcelona commented at the launch: "The objective of this initiative is to show the viability, in technical, economic and safety terms, of using natural gas as an alternative fuel for heavy trucks."

By November, more than 60 trucks operating locally are already being powered by natural gas, either with dedicated or dual fuel engines.

### *.. as well as a straddle carrier*

The Port is also collaborating closely with Enagás, which is leading a project supported by funding from the European Union's Connecting Europe Facility (CEF) programme.

CORE LNGas hive is a large-scale project with a total of 42 members, including several ports on the Iberian Peninsula.

This project has already yielded several initiatives at the port.

For example, with its partners APM Terminals, LNG services provider HAM, technology provider IDIADA and Naturgy Iberia, the Port of Barcelona has taken an existing straddle carrier to completely transform its two 150 kW diesel-based motor engines to natural gas with the aim to keep the same level of performance.

The straddle carrier will also be equipped with two 500 liter tanks for LNG supply to the motors.

The pilot operation of this straddle carrier is scheduled for October this year.

*.. and building an LNG/CNG fuel station to supply vehicles on site*

In addition, and to supply these and other vehicles with alternative fuel, the Port of Barcelona, Spanish LNG services provider HAM and Portuguese energy player Galp opened the first natural gas supply station for vehicles in Spain's port system last November as an additional cHAMEleon project.

The new facility currently has two compressed natural gas (CNG) pumps for trucks and vehicles, two liquefied natural gas (LNG) pumps for trucks and a cryogenic LNG tank of 60 cubic meters capacity.

There are plans to double this capacity moving forward.

"The gas supply station is proof of the Port's firm commitment to foster use of an alternative clean sustainable fuel like LNG" commented Port of Barcelona's President Mercè Conesa at the launch.

*Equipping a tug with a dual fuel motor ...*

A third CORE LNGas hive project involves the feasibility study and design of a tug boat, with a dual fuel engine capable of running on diesel and LNG.

The ultimate aim of this project is to compare performance using both fuels, with the ultimate aim of justifying the deployment of LNG-fueled engines to the entire fleet of tugs.

The project commenced two years ago and remains ongoing.

*... as well as using LNG as a fuel to generate independent on-board power supply for visiting ships berthed at the quayside*

The Port of Barcelona estimates that 71% of total NOx emissions emanate from vessels whilst being moored alongside the quayside.

To reduce this impact, a further CORE LNGas hive project involving HAM, Siemens, Suardiaz Group, Bureau Veritas and the ports of Barcelona, Vigo and Tenerife have teamed up to establish a pilot project to supply electricity autonomously to ships alongside.

They have deployed two containers at the quayside: one which contains a regasification unit with two LNG tanks which provides gas to an 850kW generator

set which runs on gas and is capable of generating electricity connected by special cable to the ship alongside.

The system has been tested successfully in the Port of Barcelona and in the Port of Vigo before undergoing a final test at the Port of Tenerife.

#### *Project Cleanport – using LNG on board to help provide electric power*

Meantime as part of the European Union's CEF Programme with Project Cleanport, ferry owner-operator Baleària is piloting an on-board natural gas-propelled auxiliary motor on board its ship Abel Matutes.

This motor generates electrical power whilst in port and during arrival, departure and docking manoeuvres on its Barcelona-Palma route, reducing emissions.

The first truck-to-ship LNG transfer with the ferry took place at the Port of Barcelona in February 2017 following the signed agreement a month earlier by Naturgy (formerly Gas Natural Fenosa) and Baleària to supply its vessels with LNG at the ports of Barcelona and Palma de Mallorca.

This pilot programme has supplied LNG to Abel Matutes which has installed the gas-powered engine and a 30 m<sup>3</sup> tank (enough for one week) on deck 8.

The new engine is fully integrated into the ship's electricity plant, which enables it to operate by disconnecting its auxiliary engines.

Last November, also as part of the European Union's "Connecting Europe Facility" project, Baleària announced it would begin retrofitting its ferry Napoles to operate on dual fuel, permitting their vessels to travel a distance of 1,200 miles on LNG.

Five other ferries are lined up for the same conversion and the Port of Barcelona shall be prepared for LNG barges to supply fuel.

#### *Looking ahead*

Aside from these technical innovations, the Port of Barcelona is working with Enagás to develop terminal infrastructure to supply small scale LNG to both bunker barges and bunker vessels which will permit ship-to-ship operations at the Port.

Jordi Villa added : "The next steps also involve working closely with the Spanish State Ports Authority as well as Classification Societies and the Clean Marine Fuels working group of the IAPH to ensure safe and efficient future LNG bunker operations.

The authorities are also already looking with us at legislation that provides port dues incentives to owners with ships that exceed standard environmental performance.

The Port of Barcelona intends making itself a top destination for the next generation of LNG-powered container ships, cruise ships and ferries”.

IAPH Managing Director Patrick Verhoeven commented : “The Port of Barcelona’s efforts to improve air quality show true leadership based on the principal that commercially-viable alternative fuel solutions are achievable by closely partnering in the long term with suppliers, customers and technological innovators.”

*(from: hellenicshippingnews.com, January 29<sup>th</sup> 2019)*

## MARITIME TRANSPORT

### THE REGULATIONS FOR 2020 – THE NEXT DECADE OF SHIPPING REGULATIONS

As we quickly approach the turning point of a new decade, there is much speculation on what would be decided in terms of regulations imposed on the shipping activity.

IMO's working group has been analysing some future strategic possibilities to be introduced in order to combat the shipping industry estimated 2.5% share of global CO2 greenhouse gas emissions (GHG).

This is a prioritised area since without any decisive measure an alarming increase in the sector share of emissions by 50-250% might be achieved within 2050.

Although CO2 is a huge concern, the emission of other pollutants such as nitrogen and sulphur oxides as well as particle matter has been kept under a closer look.

#### *Recent situation*

The year 2018 has been a significant year for environmental regulations.

Important decisions have been made, regulations finalized, and we have now a clearer picture of the regulatory landscape than a year ago.

In the last two years, shipowners have been facing EU MRV regulations which focused on CO2 emissions by vessels with 5,000 GT and above, and that cross EU ports of call.

At the beginning of 2019, the IMO-DCS (Data Collection System) will enter into force.

It comprises a three-step approach: in the first stage, there will be a collection and reporting of fuel consumption data for each type of fuel used on board.

Other data related to hours underway and distance travelled will also be monitored.

This collected data will be further analysed and a decision shall be taken regarding measures to apply.

This regulation will have a significant impact due to the fact that it has a worldwide range, engaging all international voyages made by large pollutant vessels.

Companies will also have to develop and validate a SEEMP (Ship Energy Efficiency Management Plan) for each vessel, collect the mentioned data and perform annual reports to be submitted to the Administration or any organization duly authorized by it.



A result of conformity is emitted by the issuance of a Statement of Compliance that the company should kept aboard the ship and it shall be valid for the calendar year in which it is issued and for the first 5 months of the following calendar year.

#### *What's new to come*

The MEPC (Marine Environment Protection Committee) is expected to develop and agree on a programme of actions to implement the initial IMO strategy on the reduction of GHG emissions from ships, which was adopted in April 2018.

An Intersessional Working Group, that met last October, MEPC 73, initiated this work and has already focused on some important points.

One of the issues, as mentioned, is related to Reduction of Greenhouse Gas emissions from ships.

Strategic measures for short, mid and long term were discussed and are to be finalized between 2018 and 2023 for short-term, between 2023 and 2030 for mid-term and beyond 2030 for long-term measures.

MEPC agreed on a follow-up action plan which discussions will be detailed on at MEPC 74 in May 2019.

Another focus in the recent future will be related to sulphur emissions and the implementation of a limit for 2020.

The now lower sulphur limit in fuel oil will be in force from the 1st January 2020 and is restricted to 0.5% under IMO MARPOL treaty, in order to guarantee improvements for the environment and human health.

This restriction has global applicability although in Emission Control Areas (ECAs) the limit will be even tighter, down to 0.10%.

Most vessels are expected to be using new blends of fuel oil which will be produced to meet the 0.50% limit on sulphur in fuel oil.

Currently, the maximum sulphur limit in fuel oil is 3.50% globally (and 0.10% in the four ECAs).

The carriage in tanks of non-compliant fuel oil is forbidden unless the vessel has an exhaust gas cleaning system fitter (example: "scrubber").

This last amendment will enter into force in March 2020.

The usage and carriage of HFO as fuel by ships in Arctic water will be banned in analogy to what was concluded in the Antarctic under MARPOL Annex I Regulation 43.

Regarding NOx emissions, NOx Tier III requirements have entered into force in the North American emission control area (ECA) for vessels constructed on or after 1 January 2016.

In essence, anyone building a ship today needs to consider whether the vessel will — or might at some point — operate in that area.

If so, NOx control technology will be needed for that vessel.

Additionally, MEPC 71 adopted the MEPC 70 agreement to apply NOx Tier III requirements to ships operating in the North Sea and Baltic Sea ECAs.

This will apply to ships constructed on or after 1st January 2021.

In the following years, a review of the Energy Efficiency Design Index (EEDI) is also expected, tightening the requirements for certain new ships.

It is expected, since MEPC 73, an increase in the baselines reduction from 30% to 40% for container vessels starting in 2022, maintaining 30% for general cargo vessels starting in 2022 and maintaining the current requirements and timeline (2025) for tankers, bulkers and all ro-ro ship categories.

Other concern for the following years will be the control and management of Ship's Ballast Water and Sediments that make use of active substances.

It is expected the inclusion of contingency measures in the management plan.

The discharge requirements for tank washings containing persistent floating products with high-viscosity and/or a high melting point will also be restricted to specific areas according to MARPOL Annex II.

IMO has also started to discuss how to address plastic litter from shipping on the oceans and developed an action plan in the context of 2030 Sustainable Development Goal 14 (SDG 14).

The measures within the plan should be completed by 2025.

In study are possibilities such as evaluating the adequacy of port reception facilities or facilitating the delivery and retrieving of fishing gear.

### *Conclusion*

The regulations described above are set to improve the shipping industry's environmental profile and will result in a significant decrease in harmful emissions from vessels.

The regulations, in particular, the 2020 global sulphur cap, will however for ship owners, operators and charters represent new challenges which will need to be carefully considered and addressed.

Such challenges also bring opportunities for existing and new players in the market, and there are reports regarding different positions taken in the preparation of 2020 on a daily basis.

*(from: hellenicshippingnews.com, January 17<sup>th</sup> 2019)*

## ROAD TRANSPORT

### **CZECH TRANSPORT COMPANIES UNDER THREAT FROM BETTER DRIVER SALARIES**

Truck drivers should earn the same salaries as their foreign colleagues while working abroad, according to new EU rules.

But non-EU competition and disgruntled hauliers complicate the issue further.

The revised Posting of Workers Directive introduces the principle of “the same pay for the same work in the same place” and must be transposed into national laws by July 2020.

Transport companies still hope that their services will be excluded from the new rules, since commercial road transport should be covered by the so-called Mobility Package.

However, time is almost up and the new set of rules is still not approved.

Even though the member states already reached a compromise, the European Parliament failed to approve it in July last year and the legislation returned to the Parliament’s Committee on Transport and Tourism for redrafting.

Although the new version should have been adopted on 10 January this year, the committee managed to approve only new rules on cabotage, while the issue of truck driver salaries remained unsolved.

“MEPs just buried the Mobility Package,” said Jan Němec from the association of road transport operators, ČESMAD Bohemia, which opposes the Posted Workers Directive.

“The refusal of the compromise means that the rules will also apply to international road transport,” stated MEP Martina Dlabajová (ANO, ALDE).

*German salaries are attractive, but...*

Czech companies have refused the Posted Workers Directive since the beginning.

The Confederation of Industry and Transportation of the Czech Republic and the Czech Chamber of Commerce are also against the rules.

The issue is not only the salary raise for posted workers, but also the additional administrative responsibilities related to the salary calculation.

The task of the transport companies would get even more complicated, since drivers often travel across a few European countries per day.

"I go abroad circa three times per week.

It often happens that I leave on Monday and then come back on Friday.

Sometimes I return right away," Czech truck driver Martin Tecl said, describing his work routine.

He often has to transport goods to cities such as Dresden, Leipzig, Berlin or Hamburg, so he spends dozens of working hours per week in Germany.

"I would be foolish if I did not want to earn the same salary as German truck drivers.



On the other hand, I am aware of the fact that many of the Czech companies would struggle to remain in business and the Ukrainian companies would take over," said Tecl.

He also fears that instead of raising the drivers' salaries, the companies would find a way to circumvent the legislative.

"If someone wants a German salary, he should get employed in German company.

The only problem is the longer commute to work," added Tecl, who is satisfied with his Czech salary.

### *Lack of parking space*

There are other issues that truck drivers face, which should be dealt with according to Tecl.

While on the road in the Czech Republic, they often struggle to find a parking space to take the obligatory rest break.

"The situation in Germany is much better, but in the Czech Republic we spend a lot of time searching for a parking space.

That is the biggest problem," said Tecl.

Obligatory rest breaks for drivers are also part of the Mobility Package.

Due to the upcoming European elections, transport companies will have to wait for the newly formed European Parliament to finally make the decision.

*(from: euractiv.com, January 22<sup>nd</sup> 2019)*

## INLAND RIVER TRANSPORT

### **RHINE, EUROPE'S MOST IMPORTANT RIVER, RUNS DRY**

Kevin Kilps' car ferry churns the waters of Germany's Rhine river as he steers towards the bank opposite Kaub, a scenic village just south of the rocky outcropping named after the legendary siren Lorelei.

It's typically a busy stretch of waterway.

On a normal day, the commuter ferry vies for space with cargo barges shuttling supplies to factories in the south and German goods to ports on the North Sea as well as tourist boats heading for nearby mediaeval castles and vineyards.

After a prolonged summer drought, the bustling traffic at one of the shallowest points on the Rhine ground to a halt for nearly a month late last year, choking off a critical transport artery.

The impact damped Germany's industrial machine, slowing economic growth in the third and fourth quarters.

It was the latest sign of how even advanced industrial economies are increasingly fighting the effects of global warming.

"You can see the water levels are lower each year," said Mr Kilps, who added extra flotation equipment to the 150-tonne boat during the stoppage to enable it to finally cross the river again.

"It's scary to watch the climate changing."

With its source high in the Swiss Alps, the Rhine snakes approximately 1,290km through the industrial zones of Switzerland, Germany and the Netherlands before emptying into the sea at Rotterdam, Europe's busiest port.

It serves as a key conduit for manufacturers such as Daimler AG, Robert Bosch GmbH and Bayer AG.

When low water halted shipping this summer, steelmaker Thyssenkrupp AG was forced to delay shipments to customers like automaker Volkswagen AG, as it couldn't get raw materials to a mill in Duisburg.

Constraints on the Rhine cost BASF SE around €250 million (\$386 million) by pushing the chemical maker to use more expensive transport options.

In a recent newspaper interview, BASF chief executive officer Martin Brudermueller called for major infrastructure investments such as locks and dams that can release water to ensure shipping lanes remain open.

“We have already seen effects on national economic growth,” said Mr Oliver Rakau, chief German economist at Oxford Economics.

“The problem is related to global warming and can happen again.”

The river is fed by glaciers and rain.

But alpine ice flows shrank 28 per cent between 1973 and 2010 – the date of the most recent in-depth study by the Swiss government – and that decline may be as much as 35 per cent now, according to Dr Wilfried Hagg, glacier expert at Munich University.



“The Alps are warming at an even faster rate as snow and ice melts,” Dr Hagg said.

“A warming climate means that incidents like the low river levels this summer are more likely to occur.”

Water depths, which hit 12-year lows at Kaub for most of the second half of 2018, hobbled barge flows for months.

The boats, which typically haul more than 18,000 barrels of diesel each, were prevented from loading at full capacity until late December, and fluctuating water levels continued to affect cargo activity in January, according to Riverlake Barging, a Rotterdam-based broker.

Fuel pumps at some gas stations in Baden-Wuerttemberg ran dry this summer because of supply problems, which led to the release of emergency stockpiles in Switzerland and Germany.

Natural gas prices in Europe jumped 13 per cent in November, when utilities boosted output at gas-fired generators as they struggled to get supplies for coal plants.

Even with Germany’s extensive road and train networks, the Rhine is hard to beat.

Barges can carry more than five times their own weight, making them cheap to operate.

Shipping from Rotterdam to Basel costs around 40 per cent less than rail transport, according to the German Federal Institute of Hydrology.

To thwart future transport-related disruptions to the economy, Chancellor Angela Merkel's government is mulling measures such as permanently easing Sunday restrictions on truck traffic in Rhine states, lightening loads on barges and improving freight train connections.

In Kaub – known for Pfalzgrafenstein Castle, an imposing former toll station located on a rock in the middle of the Rhine – locals have noted the river's ever-lower levels and are concerned about what the coming years will bring.

"I think we're going to have problems much more regularly," Mr Kilps, a 15-year Rhine veteran, said as cars rolled on to the ferry.

*(from: [hellenicshippingnews.com](http://hellenicshippingnews.com)/[bloomberg.com](http://bloomberg.com), January 21<sup>st</sup> 2019)*

## TRANSPORT & ENVIRONMENT

### **CHINA'S MOVE ON DISCHARGE FROM SCRUBBERS MAY AID LOW SULFUR FUEL OIL DEMAND**

China's recent move to ban the discharge of wash water from open-loop scrubber systems from January 1, when implemented on a wider scale, is likely to prop up demand for low sulfur fuel oil and low sulfur marine gasoil further, industry sources told S&P Global Platts.

The ban means that shipowners will either have to switch to closed or hybrid loop scrubbers or low sulfur bunker fuels in designated areas, with some sources saying that LSFO or LSMGO are likely to be the main marine fuel choice.

China's ban already affects the country's emission control areas covering inland waters and most of its coastline, including the Bohai Bay waters.

While the prohibition does not currently apply to its territorial waters, a full ban on open-loop scrubbers could be adopted soon, industry sources said.

An open-loop scrubber uses seawater to remove sulfur oxides from the engine exhaust.

The sulfur oxide in the exhaust reacts with the water to form sulfuric acid, which is then washed back into the sea after neutralization.

Some industry sources said such scrubbers don't address environmental issues as they simply take sulfur out of the air and put it into the ocean.

"The impact on HSFO demand will be small currently as China's ban [on open-loop scrubber fitted vessels] only applies to vessels sailing within 12 nautical miles of the coast," a source said.

Many ships are already using LSFO or LSMGO there, he added.

"In future, less HSFO will be consumed," a China-based trader said.

China's prohibition mirrors a similar step by Singapore, which is however set to impose the ban from 2020.

The steps taken by both countries, meant to protect the marine environment and keep the port waters clean, come as the International Maritime Organization's global sulfur limit rule for marine fuels looms.

The IMO will cap global sulfur content in marine fuels at 0.5% starting January 1, 2020, from 3.5% currently.

This applies outside the designated ECAs where the limit is already 0.1%.

The ban on the discharge of wash water from open-loop scrubbers comes at a time when China has already implemented other stricter emission control regulations.

China's Ministry of Transport announced early December the expansion of the ECAs to China's entire coastline from January 1 compared to the initial area covering Yangtze Delta, Pearl River Delta and Bohai Rim applied to vessels sailing within 12 nautical miles of the coast.



Large vessels are now required to burn 0.5% sulfur bunker fuels while the smaller ones have to consume 10 ppm sulfur bunkers, in line with the National Phase 5 & 6 emissions, when they are in inland waterways, according to the ministry's announcement in early December 2018.

The new policy also requires all ocean-going vessels to use bunker fuel with 0.1% sulfur when they are entering inland waterways areas in China, starting January 1, 2020.

According to Wang Zhuwei, senior analyst with Platts Analytics, China's apparent demand for LSMGO is expected to rise 32% year on year to 8.09 million mt/year in 2019, while demand for LSFO and blended distillates would grow 44% on year to 5.12 million mt/year, Platts reported in December.

LSFO and LSMGO demand is likely to accelerate as limitations around their widespread adoption wane, sources said.

Facility constraints are the main impediment to LSMGO supply currently, sources said, adding that larger storage tanks and barge capacity are required to meet any rise in demand.

"Barges used to carry 30-50 mt per order.

Now orders range [from] 100-500 mt," a source said.

Plans are underway by some players to upgrade barge capacity, sources said.

Meanwhile, LSFO demand is also hampered due to lack of adequate availability.

Currently, LSFO for bonded bunkering is not produced by China's local refineries, but is imported in limited amounts from Singapore, Malaysia and the Middle East, and stored in tanks in China's major ports such as Shanghai and Zhoushan.

Sources said LSFO demand will increase later this year, as supply becomes more widely available.

From August, for example, China's Sinopec plans to start the first commercial supply of LSFO for the bunker fuel sector from its coastal refineries.

"So far, LSFO demand is not strong.

However, it will go up," a Hong Kong-based trader said.

*(from: seanews.co.uk, January 15<sup>th</sup> 2019)*

## LAW & REGULATION

### **NEW EU REGIME FOR SAFER AND GREENER SHIP RECYCLING ENTERS INTO FORCE**

From 31 December 2018, the recycling of all large sea-going vessels sailing under an EU flag can only take place in yards included in the European List of ship recycling facilities.

This is the result of the EU Ship Recycling Regulation – the only legally binding and comprehensive instrument on ship recycling in force in the world today, which aims to make ship recycling greener and safer.

The European list contains currently 26 yards, most of them located in the EU, but also in Turkey and the USA, and additional yards are expected to be included in the list in the future.

European ship owners own 35% of the world fleet.

A large percentage of these is being dismantled in South Asia, under conditions often harmful to workers' health and the environment.

With the full entry into force of the EU Regulation on ship recycling, this will no longer be possible for EU-flagged vessels, which will have to get dismantled in EU-listed yards.

Through this initiative, the EU is leading the way to improve social and environmental conditions under which ships are recycled.

On this occasion, Karmenu Vella, EU Commissioner for Environment, Maritime Affairs and Fisheries visited today one of the busiest ship recycling yards in Europe in Ghent (Belgium), to witness first-hand the reality of ship recycling in Europe and exchange views with representatives of this industry.

Commissioner Vella said: "For too long, EU vessels have been dismantled in poor environmental and social conditions.

This is not acceptable any longer.

The full entry into force of the EU Regulation on ship recycling is a milestone for this sector, as it provides for the first time clear and specific rules on how EU-flagged vessels should be recycled.

Like other recycling activities, ship recycling can be carried out sustainably, in a way which is good for workers, the environment and the economy.

This is what is happening at the Ghent ship recycling yard and this is what the EU aims at.

We count on all actors in the sector to work constructively with us to make it happen”.

The Ship Recycling Regulation adopted in 2013 aims to reduce the negative impacts linked to the recycling of ships flying the flag of EU Member States, laying down requirements that ships and recycling facilities have to fulfil in order to make sure that ship recycling takes place in an environment sound and safe manner.

The list is drawn up by the Commission, in close cooperation with the EU Member States, and regularly updated to include yards complying with strict safety and environmental standards.



The Commission is currently assessing applications to join the EU list from more than 20 additional yards, located mostly in India and Turkey.

At the international level, the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships was adopted in 2009 but has not entered into force as it has been ratified by an insufficient number of Parties.

In the absence of global specific rules on ship recycling, the EU Regulation is the only dedicated legally binding framework regulating these activities.

The ship recycling industry — which dismantles old and decommissioned ships enabling the re-use of valuable materials — is a major supplier of steel and an important part of the economy in many countries, such as Bangladesh, India, Pakistan and Turkey.

The recycling of scrap metals from ships also reduces the need for mining, an environmentally damaging practice.

In this way, it is a vital part of the circular economy, which purports to minimise waste and recycle some materials infinitely.

*(from: hellenicshippingnews.com, January 14<sup>th</sup> 2019)*

## PROGRESS & TECHNOLOGY

### INSIGHT: FOUR TRENDS TO WATCH IN 2019

From the increasing use of drones to monitor terminal operations, to the growth of cloud connectivity within smart ports, 2018 was a period of real progress.

So to begin 2019, this piece delves in to the four biggest trends for the New Year, and highlights just how impactful they could be.

2019 is set to see the level of automation at major ports rise, as predicted by TBA's Dr. Yvo Saanen, and this begs the questions: "What digitization trends will this manifest?" and "How can these new technologies be leveraged?"

The below trends address these key questions.

#### *5G networks*

With an incredibly fast and vast 5G ecosystem developing, which will ensure "the levels of automation and artificial intelligence" necessary to meet growing operational demands, ports and terminals are clearly eager to take advantage of this technological breakthrough.

Hamburg, one of Europe's top ten ports in terms of container volume, has tested 5G technology as it prepares to become "a hub for next-generation industrial mobile communications".

According to trials conducted by the port, this technology will support engineers on site to "monitor and optimize construction planning"; in 2019, it is possible that 5G will be applied more directly to day-to-day operations at major ports and terminals striving to become smarter.

The additional connectivity and speed offered by 5G, which has the ability to transfer data safely within milliseconds, could also support the digital transformation of the container shipping industry, linking ports and logistics companies securely as the foundation for a more intelligent supply chain.

5G seems to be the glue that will fix the long-awaited Internet of Things (IoT) in place.

#### *Sensor technology*

The rise of 5G will pave the way for other technologies to emerge and develop, with the flexible and fast network able to function in tandem alongside cellular IoT.

Cellular IoT is a means of connecting physical objects; for ports and terminals, it can be implemented so that port equipment is able to transmit data through sensor technology for more independent, automated and efficient operations.

Major companies such as ABB are already investing in the shift towards sensors, a movement that has applications for the container shipping industry beyond the everyday operations of ports and terminals.



Mitsui O.S.K. Lines (MOL), a shipping company committed to innovation, has tested a container tracking management system which employs optical sensors to detect changes in condition, including whether or not the container is opened by an unauthorized party.

Ultimately, ports and terminals will be focused on the amount of data which smart sensors are capable of generating, especially those that wish to develop new services and platforms to take advantage of that information.

Smart sensors are set to be a major subject of discussion at the upcoming Container Terminal Automation Conference (CTAC) in May 2019, now in its fourth year.

### *Internet of vehicles*

While smart solutions based on the Internet of Things (IoT) have been implemented widely at major ports and terminals, powering the drive towards automation, the Internet of Vehicles (IoV) remains at an earlier stage of development.

Nevertheless, this concept could take flight in 2019 to support the more effective management of port traffic, increasing safety by lowering the chance of collisions.

There is already evidence of leading port facilities in Europe integrating IoV technology, with the Port of Valencia and MSC Mediterranean Shipping Company working together to integrate a new truck solution from Traxens.

MSC's Spain trucks were equipped with specially designed IoT devices, which tracked the vehicles in real-time to help Valencia predict and prepare for potential arrivals and congestion at the port's gates.

As Agustina Calatayud states in a technical paper focused upon the connected supply chain, IoT and sensor technology can also be used elsewhere to support vehicles arriving at ports and terminals.

She writes: "Sensors placed on parking spots at logistics and port facilities can generate information on available spots, the best route to reach them, and the expected cost", which leads to faster delivery times and higher savings for every party involved in the maritime supply chain."

### *Port centric logistics*

Although technology could provide the key to higher efficiency and reliability, for the ports and terminals sector, there is also a need for these centres of trade to streamline their own logistics infrastructure.

The rise of port centric logistics in importance is chiefly down to the end-to-end demands of the modern day supply chain.

International mega-firms such as Amazon have changed the expectations of customers when it comes to speed of delivery, meaning the ports that invest in their wider processes and provide a conducive environment for the sorting of goods, before they even enter the wider chain, are sure to achieve much more business.

Maritime businesses which can integrate port centric logistics into their everyday operations may find the improvement is equally significant to the positive impact of a new technology, clearing an all-new path for successful ports to follow, and threatening ports who do not keep pace with a loss of business.

PTI is set to publish an e-journal on port centric logistics in its Issue 82, available in February.

*(from: porttechnology.org, January 11<sup>th</sup> 2019)*

## STUDIES & RESEARCH

### OCEAN MARKET SET TO TIGHTEN DUE TO LOWERED CAPACITY EXPECTATIONS

Leading container shipping analyst has Drewry “greatly reduced” its expectations of new orders for ultra-large container vessels (ULCVs) as a result of an apparent change of focus among some of the major carriers towards broadening and deepening their involvement in the wider container logistics market, trends it believes will aide the overall container shipping supply-demand balance.

In a briefing today, Simon Heaney, senior manager for container research at Drewry and editor of the company’s Container Forecaster report, commented: “We believe that the industry’s supply-demand balance will benefit from a reduced appetite for ULCVs among the major carriers, some of which now have their eyes fixed on a bigger prize of becoming global logistics integrators.

Aside from feeder ship replenishment, there has been no reaction from other lines to HMM’s mega-ship order and as such we have greatly reduced our projected new orders for 2020 onwards.



This subsequently feeds into a much brighter supply-demand index forecast for carriers through 2022, although the index is still expected to remain below the important 100 marker, indicative of a tighter but still over-supplied market.

Ultimately, we believe that these adjustments on the supply side will be sufficient to cushion the blow from slowing demand growth and will contribute to better freight rates and profits.”

Weaker global macro-economic drivers contributed to a downgrade to Drewry’s port throughput forecast for 2019 to approximately 4%, but that softening trend should be mitigated by changes made on the supply side to better balance the market, Drewry believes.

“Adjustments to the containership orderbook since the last Container Forecaster reveal that deliveries have been spread more widely than before, with more original 2018-19 newbuilds being pushed out to 2020,” Drewry noted.

“Combined with an expected increase in demolitions, the net addition to the fleet is expected to be only half that of 2018, leading to a fleet growth rate of just 2.5%.”

Additionally, supply-side moves associated with the IMO’s upcoming 2020 low-sulphur fuel regulation have the potential to curb capacity, at least on a temporary basis, Drewry noted.

“A growing tendency towards retro-fitting scrubbers could see a number of ships taken out of service for a number of weeks at a time, while more generally Drewry expects ship-owners to idle and eventually scrap more older and uneconomic ships before the 1 January deadline.

Wider use of slow steaming will also help to absorb new capacity and reduce the often negative influence of the cascade on the supply-demand balance.”

Heaney concluded: “Last year was one of the most unpredictable the container shipping industry has faced, and this year is likely to be similarly volatile with question marks still hanging over the US-China trade war and new fuel regulations.

However, despite being dogged by uncertainty, Drewry is predicting another solid year for the market.”

*(from: lloydsloadinglist.com, January 14<sup>th</sup> 2019)*

## REEFER

### INSIGHT: THE RISE OF REEFER SHIPPING

While refrigerated containers pose a challenge to carriers and ports, demanding high running costs and regular maintenance, the market for reefer shipping is growing at a fast rate.

In a recent technical paper, available from Port Technology ([https://www.porttechnology.org/technical\\_papers/maersk\\_next\\_gen\\_efficiency\\_in\\_reefer\\_operations](https://www.porttechnology.org/technical_papers/maersk_next_gen_efficiency_in_reefer_operations)), Maersk Container Industry's Søren Leth Johannsen explained that cutting energy costs and optimizing cargo quality, using a combination of existing and emerging technologies, makes this sector valuable for maritime businesses.

Although technological innovation has already had a significant impact on reefer shipping, carriers, terminals and analysts agree that there is more potential for development.

This has been underlined by the decision of leading shipper Maersk to commit to "cold chain", its Container Industry segment deciding to pursue the Internet of Things (IoT) as a means of transforming and improving reefer operations.

While there is enormous pressure mounting on the dry container industry, how can the market for refrigerated containers continue to grow as technology evolves?

#### *The evolution of reefers*

In its global reefer analysis for 2015, Dynamar underlined the emergence of a core trend; instead of conventional reefer ships, refrigerated boxes would soon become more popular.

By 2018, a shift in the industry had clearly taken effect, with major ocean carriers such as CMA CGM and Ocean Network Express (ONE) investing in advanced reefer boxes to support the needs of their long distance supply chains.

The benefit of reefer containers is clear: as the technology of a self-contained refrigerated unit has developed, which can bypass cold storage upon its arrival at a destination, the individual reefer has become an easier option for the process of loading and unloading.

Martin Dixon, Head of Research Products at Drewry, has highlighted that “more investment is going into the controlled-atmosphere systems” used by reefers, which slow the ripening of fruit and vegetables during long-distance transportation.

By “allowing the sea-going carriers to compete more intensively with the air-freighters”, as Dixon argues, refrigerated containers hold an extremely valuable position in the market.

### *The state of play*

Drewry has predicted that reefer trade will continue to grow over the next five years at an average annual rate of around 3%, below the 3.5% mean of the last ten years.



This statistic however, which suggests a downturn for the sector, may not tell the whole story.

While the overall growth rate of reefer shipping may be slowing, “containerised reefer traffic” is accelerating at a much faster pace; according to Drewry, this share of the market expanded by 8% in 2017, and continues to develop year-on-year.

For terminals specializing in cold container operations, such as the reefer-dedicated facility at the Port of Luka Koper in Slovenia, the growth of this business area has been reflected by an increase in competitiveness, the market and customer expectations “becoming stricter and more demanding”.

“In order to cope with this,” as Operations Manager Luka Kraljić explains, “our operations have to be well-coordinated and monitored, but still flexible”: the key focus for the terminal is “careful planning” and cooperation “among participants in the supply chain”.

### *Industry challenges*

The marketplace for containerized reefers may be lucrative, but terminals and solution providers working within this sector are still required to overcome a series of operational and financial challenges.

The Port of Luka Koper faces the most difficulties during peak season when, despite a significant increase in container volume, “clients expect the best service with practically the same time for delivery of goods”.

Many reefer terminals, like Luka Koper's, have limited resources and need to strictly manage storage availability "in order not to run overbooked", the growth of the reefer trade itself incurring added challenges for businesses dealing with refrigerated containers.

From the perspective of Anders Holm, Global Head of Sales and Marketing at Maersk Container Industry, reefer shipping also provokes discussions about environmental performance: "In daily operations," Holm underlines, "our customers need to meet their sustainability goals while operating cost-efficient."

As the entire maritime community prepares for the International Maritime Organization's (IMO) new sulphur limits, to be introduced in January 2020, the cost of fuelling a ship carrying multiple reefer units has understandably caused concern.

### *A smarter future*

Although reefer containers have limited lifespans, and are expensive to run while they are in service, the evolution of new technologies within the sector could present serious benefits to shippers and terminals alike.

According to Maersk, temperature-control software such as 'StarConomy' will help carriers absorb the cost of increased energy bills, while the launch of its Sekstant reefer digitalization service is set to provide container operators with increased visibility of their reefer fleets.

With added transparency comes increased efficiency, as real-time access to data on container temperature, atmosphere and energy consumption can help shippers to organise their reefer shipments more effectively.

"Customer demand", as Maersk asserts, has prompted the rise of these new technologies, and Martin Dixon of Drewry agrees that container shipping lines are looking to "capture this growing market".

The containerized reefer trade will continue growing over the next few years and as demand on shipping lines, solution providers and specialist terminals increases, so will the need for new technologies and smarter operations to accommodate this.

*(from: porttechnology.org, January 24<sup>th</sup> 2019)*

## ON THE CALENDAR

- 19/02/2019 – 21/02/2019 Manila 10<sup>th</sup> Philippine Ports and Shipping 2019
- 19/03/2019 – 21/03/2019 Mombasa 21<sup>st</sup> Intermodal Africa 2019
- 14/05/2019 – 16/05/2019 Aktau 1<sup>st</sup> Caspian Ports and Shipping 2019
- 25/06/2019 – 27/06/2019 Casablanca 7<sup>th</sup> Mediterranean Ports and Shipping 2019
- 09/07/2019 – 11/07/2019 Constanta 8<sup>th</sup> Black Sea Ports and Shipping 2019
- 10/09/2019 – 12/09/2019 Phnom Penh 17<sup>th</sup> ASEAN Ports and Shipping 2019
- 22/10/2019 – 24/10/2019 Polonia 3<sup>rd</sup> Baltic Ports and Shipping 2019
- 26/11/2019 – 28/11/2019 Douala 22<sup>nd</sup> Intermodal Africa 2019

The Secretariat of C.I.S.Co. is able to communicate detailed information on the programs of all the events and how to participate.