



# Newsletter

November 15<sup>th</sup> 2017

*Link road, rail, sea!*

Council Of Intermodal Shipping Consultants

**YEAR XXXV**  
**Issue of November 15<sup>th</sup> 2017**

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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

### C.I.S.CO. AT THE NAPLES SHIPPING WEEK 2018

From September 24<sup>th</sup> to 29<sup>th</sup>, 2018, Naples will host the third edition of an important international profile initiative: the *Naples Shipping Week*.



During that week, Naples will host a series of conferences and meetings open to the entire community of international shipping to which will be contributed by prestigious speakers from the business, scientific and academic world.

The *Naples Shipping Week* was born thanks to the partnership established between the Propeller Club Port of Naples, which brings together all the major shipping cluster representatives and ClickutilityTeam, the nation's leading company in organizing events.

On the occasion of the 2018 edition, continuity will be pursued with the aim of achieving the goal of joining Genoa and Naples, creating an ideal bridge to the Mediterranean, and reconfirming Italy's key role in the development of maritime cluster and trade of the *mare nostrum*.



After the third edition of the *Genoa Shipping Week* in Genoa at the end of June 2017, Naples took again the lead with the goal of realizing at the end of September 2018 a great international profile event.

In the context of the preliminary activities, C.I.S.Co. participated in the first working table of *Naples Shipping Week 2018* and as in the last edition will organize an event on containerization.

## PORTS AND TERMINALS

### APMT VADO DEVELOPMENT: RAIL OBJECTIVE 40%

The new APM Terminals' platform in Vado, which is currently under construction in the northern Italy, will boast an annual capacity of 1.1 mln TEU, channel depths from 16m to 23m and the productivity of 26 movements per crane per hour, announced Paolo Cornetto, CEO of APM Terminals in Italy, at the 5th MED Ports 2017 exhibition and conference in Barcelona last week.

The Port of Vado is located in the region of Savona on the Ligurian Coast, near Genoa, Italy's busiest container import/export port.

APM Terminals (APMT) develops here the new 800,000 TEU capacity semi-automated container terminal, the first of the kind in Italy, able to accommodate container vessels of up to 19,000 TEU capacity, scheduled to become operational in 2018, and a Reefer Terminal.

In 2015 APMT purchased the existing Vado Ligure Reefer Terminal, with an annual capacity of 275,000 TEU, one of the largest reefer facility on the Mediterranean Sea, in particular accounting for 60% of this traffic in the ports of the Ligurian and Tyrrhenian Seas.

"We are now at 53% of the completion of the civil engineering work," The MediTelegraph quotes Paolo Cornetto.

"The installation of the cranes, which have already been completed at ZPMC in Shanghai, should take place one year earlier, in early 2018.

In 2020, the second phase of the terminal will be operational at full capacity."

Paolo Cornetto also highlighted the designed operational efficiency of the future facility: "We estimate the entry and exit times for trucks at 35 minutes, 45 minutes during peak traffic times."

Apart from regular container traffic, APMT Vado platform is intended to handle project cargo (industrial equipment, industrial components and infrastructure) and temperature-controlled fruit volumes, the facility's traditional traffic.

These operations will be carried out at the Reefer Terminal, which is equipped with a berth for possible freight ferry traffic.

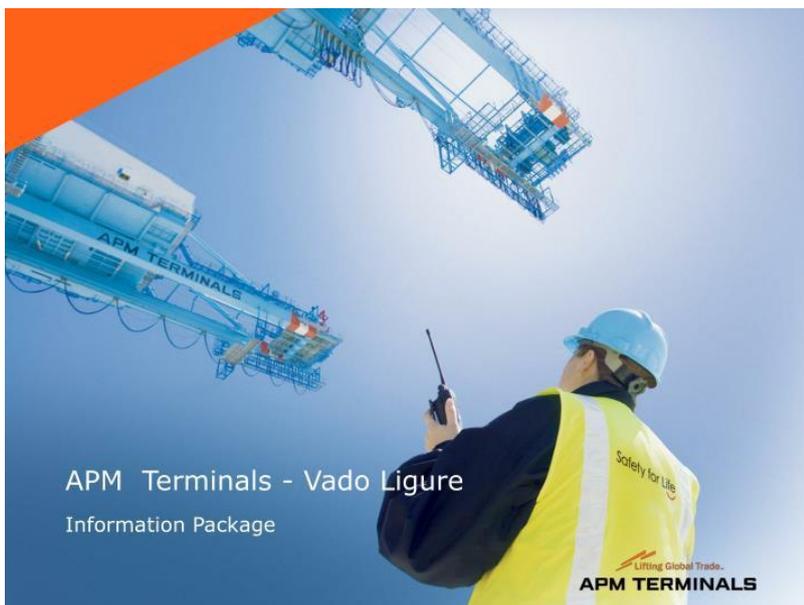
Talking about the fruit traffic, Paolo Cornetto has told about a freight train for temperature-controlled cargo, which APMT launched from Barcelona to the Zaragoza freight village in Spain.

Now the company plans to introduce this business model in Italy.

The terminal's intermodal objective is ambitious: 40% of freight to enter and exit by train.

Just to compare, the port of La Spezia's indicator is at 36%, Genoa's at 18%.

The port of Genoa's freight train operator FuoriMuro offers rail services from Genoa, La Spezia and Livorno to major destinations in the northern Italy and has recently launched a service between Marseille and Parma that calls at Vado Ligure.



APM Terminals - Vado Ligure  
Information Package

Now APMT intends to employ all the possible routes: not only the current Giovi route and the future Third Tunnel, which carry all the rail freight traffic from Genoa and La

Spezia, but also the two lines that connect Savona to Turin and Alessandria.

"The secondary lines to Alessandria and Turin are almost unused," tells Paolo Cornetto.

"With not much work they could be running high-cube containers, even if there's only a few cars.

We will study the matter over the coming weeks."

According to Paolo Cornetto, the trains that will depart from Vado new rail terminal will be 450m long, with the option of being attached to longer convoys at the intermodal centres of the Po River Valley.

As we wrote earlier, in 2016 APMT was joined by two Chinese partners in the Vado project.

COSCO Shipping Ports now has a 40% share and Qingdao Port International Development Co., Ltd a 9.9% share in both Vado Reefer Terminal and in APMT Vado Container Terminal.

APMT remains the majority shareholder (50.1%).

The deal was closed in March, 2017.

*(from: port.today, October 30<sup>th</sup> 2017)*

## MARITIME TRANSPORT

### SHIPPING INTO A CHANGING WORLD

After a summer of extraordinary disasters in the USA and other parts of the World the global economy struggles to show growth and faces huge uncertainty over the future of world peace.

Shipping which still carries more than 90% of world physical trade has shown little growth in demand for its services and in some sectors a decline.

Shipping started this decade with an oversupply of ships and yet has continued to expand its capacity with an unprecedented newbuilding program in all sectors.

Despite greater ship scrapping which has reached its maximum capacity the surplus has grown and newbuilding orders continue to appear.

The majority of the new ship orders are now in Chinese shipyards which are supported by Chinese export financing and the establishment of several huge Chinese leasing companies.

China will continue to finance and deliver new ships provided they are chartered to Chinese interests as it continues to keep freight rates down on both its imports and exports.

Thus the carrying capacity of the ships in most sectors exceeds demand resulting in the spot market rates in the dry and wet bulk sectors barely covering the operating costs of the ships and their associated debt service.

This benefits the cargo interests in raw materials and the manufacturers of finished goods whose customers are across the oceans.

The cost of shipping a container to the USA from China, Japan, Korea or Taiwan is far less than the trucking costs incurred onshore in the USA and there is no revenue for returning the empty box.

The tanker sector depends on shipping crude oil from its source to refineries and then moving the oil products and chemicals to the end users.

The discovery and development of new sources of crude oil and natural gas in the USA, combined with new onshore pipelines has led to the country looking to shortly becoming energy independent and an exporter of natural gas.

The opening of the newly enlarged Panama Canal last year has fundamentally changed the supplying of natural gas from the USA to Korea and Japan and ultimately China.

It also has enabled large, but not giant, container ships to transit and discharge at ports up and down the US east coast.

It will have a meaningful effect on shipping with countries in Central America and the Caribbean as the large ships that can transit the Canal can also dock at ports that the giant ships cannot.

The rush to build ever larger container ships is questionable as they are aimed at the export trades from China, Taiwan, Korea and Japan to the USA and Europe and rarely travel full on the backhaul routes.

The principal objective of the new US Administration is to bring manufacturing back to the USA along with trillions of dollars of US company profits that presently are legally held offshore.

This will significantly reduce cargo volumes across the Pacific and many of the giant ships may well become albatrosses and the expensive port enlargements redundant.



Financial analysts have mixed views about the future for shipping, concentrating mainly on the supply of the existing fleets and the newbuilding orderbook.

Little attention is paid to the cargo interests and their future demands for shipping services.

Globalisation is stalled as some nations still look for growth over the next decade while others face the reverse and countries such as China and India look for their growth in their domestic markets.

Oil for instance will be in great demand globally but the energy self-sufficiency objectives of the USA, the growth of tanker fleets in the Middle East and the demise of North Sea oil, Venezuelan oil and the decline of Nigerian exports all combine to suggest reduced demand for the large crude carriers, yet the orderbook continues to enlarge the fleets.

The dry cargo sector is still plagued with over-supply and too many different ship sizes.

Its main markets are the movement of raw materials which will definitely change as the major nations revise their manufacturing policies and the devastated countries in the Middle East remain stagnant.

This all combines to remind shipowners and their investors that shipping is a service industry that has lost control of its markets.

Too much of the activity in the capital markets has focused on ship values, encouraging newbuildings over continuing to operate well maintained and well managed existing ships that can operate for 20 years.

Yet the revenue streams are barely sufficient to cover operating costs and some debt service but fail to produce surpluses to support the equity needed in the future for fleet replacements.

Cargo interests can clearly afford to pay more for the shipping services they require and have historically committed to time charters to secure these services and develop close relationships with shipowners.

The short-term mentality of today's investors has caused the breakdown of these relationships as the ships mostly trade on the spot markets with minimal expenditure on maintenance and can be sold at any time.

Whilst the spot rates are usually higher than the time charter rates the ships usually average less than 300 paid days, provide their own fuel and rarely have regular trading routes.

Despite the extraordinary rises in the US stock markets this year shipping stocks continue to show little or no growth and are treated like penny stocks traded by day traders.

Shipping needs to re-establish itself as it continues to carry 90% of physical world trade, get out from under the influences of the capital markets and re-secure the interests of the commercial banks by focusing on securing the revenue streams from the cargo interests.

*(from: hellenicshippingnews.com, October 31<sup>st</sup> 2017)*

## RAIL TRANSPORT

### **PART PRIVATISATION OF DB?**

Berlin is again considering offering the DB Schenker arm of DB AG, Europe's biggest rail company, for sale.

In a letter from the Ministry of Finance to the Budget Committee of the Bundestag, it was stated that both a complete and a partial sale would be considered.

The Budget Committee had enquired how the DB could be "further developed and financially stabilised" after the government injected the equivalent of around €2.4B.

Two years ago Berlin provided a capital increase of €1B and reduced DB's dividend obligation for the period 2017-2020, effectively postponing the planned (part) privatisation of DB Schenker.

While Chancellor Angela Merkel's CDU party was returned to the Bundestag as the largest single party in the September federal elections, she has been forced to enter into a coalition with the FDP (Liberals) and Green party.

Certainly at a national level, both the FDP and the Greens are in favour of privatising all or parts of DB.

The Board of DB previously considered a part or complete sale of DB Schenker AG to reduce losses.

However, as noted, plans for a sale were put aside by the government at the time and DB AG chairman Dr Richard Lutz described DB Schenker AG as an integral part of the holding.

For the new coalition government extensive restructuring and reform of the railways is an important issue.

It is not clear how much could be raised by a sale of the whole of DB Schenker.

In 2015 it was suggested that it "could be worth between €4B and €5B," but that might seem optimistic today, particularly as some operations have since been transferred to the parent DB Cargo.

In a separate development, DB Cargo UK is working with Axiom Rail and WH Davis to convert 110 HTA coal hoppers into HRA aggregate hopper wagons.

During the conversion one of the coal hopper bays is removed, reducing the length of the wagon by 20% of its original size from 17.757m to 14.347m.



Despite the reduction in length, the gross weight each wagon can carry remains the same at 101.6 tonnes.

This allows more wagons to be transported per train, increasing the potential

payload tonnage of the train by 447 tonnes for the same length, based on a 22 HTA wagon set and a 27 HRA wagon set.

The highly engineered conversions are being carried out at both the Axiom Rail site in Stoke-on-Trent and the WH Davis site in Mansfield following the conclusion of a successful five month trial of a prototype HRA wagon, running in full service carrying aggregates from Peak Forest to Salford Hope Street.

DB Cargo UK has committed to re-engineering an initial 110 wagons and plans to have them in full service by Q3 2018.

*(from: worldcargonews.com, November 4<sup>th</sup> 2017)*

## ROAD TRANSPORT

### PIONEERING DRIVERLESS TRUCKS: KATOEN NATIE AND EXXONMOBIL

Katoen Natie, the Belgium based industrial logistics group, has started operating its first driverless truck at ExxonMobil's world-scale integrated manufacturing site in Singapore, transporting products between the company's packaging and intermediate storage facilities.

The pilot truck will operate on a 24/7 basis moving some 250,000 tons of product annually.

After a six-month test run, the project will be gradually expanded to 12 trucks, moving some 3 million tons of product annually.

Mr. Koen Cardon, CEO of Katoen Natie Singapore, said, "We combine engineering, technology and logistics operations to offer innovative and tailor made solutions to customers in a variety of sectors.

This project is a perfect example of the innovation we bring to the forefront to create value for our customers as well as creating the opportunities to upgrade the skills of our workforce."



"We are excited to support Katoen Natie in making this innovative breakthrough in chemical logistics, and helping the world envision how the future of transport will look like," said Damian Chan, Executive Director, Energy & Chemicals, Singapore Economic Development Board.

"The transformation of our industry cannot happen without a well-trained and future-ready workforce, and Katoen Natie's commitment to retrain and upskill their workers exemplifies Singapore's continuous efforts to ensure our talent is ready to take on jobs of the future."

Mr. Robert W. Johnston, ExxonMobil's Singapore Chemical Plant manufacturing director said, "Driverless trucks are an example of how the industry continues to adopt automation to improve worker productivity.

We are glad to be supporting Katoen Natie in its efforts to safely operationalise new and innovative solutions at our manufacturing site."

Mr. Cardon added, "We operate 165 logistics terminals in a network of 36 countries.

We selected Singapore as the location for this project given that it has both the vision and the right business environment to undertake such projects.

Our partnership with the Economic Development Board has been of key importance for the realization of this project.

In addition, many other parties including a team of MBA students from the Singapore Management University (SMU) and the IE Business School have been pivotal for this project."

SMU's Associate Professor of Operations Management (Practice), Professor Lieven Demeester, who guided students in his previous role as Associate Dean of MBA Programmes commented, "We are proud of our MBA students.

They helped Katoen Natie identify the technology partners, initiate a productive collaboration between them, and assure the financial viability of the project."

Katoen Natie also worked with Dutch industrial VDL Groep as partner for this project, who carried out the truck conversion and automation at its local VDL Automated Vehicles technology centre here in Singapore.

Mr. Theo Toussaint, Executive Vice President of VDL Groep, said, "We're delighted to partner with Katoen Natie in this driverless truck project.

The ambition of VDL is to become the leader in electric and automated heavy-duty vehicle applications and we see this project as another big step towards our goal."

Since establishment in Singapore 20 years ago, Katoen Natie has developed many new solutions in Singapore that includes safety inspections by drone, transport management through a specially developed mobile phone app and a range of new technologies in packaging and shipping operations.

Mr. Cardon said, "The pilot driverless truck project is not an endgame but a milestone in a wide range of innovative solutions that we are introducing for our customers worldwide.

Our Singapore operations have become a centre of excellence for Katoen Natie which will enable us to create value for our customers across the world.”

*(from: bulk-distributor.com, October 27<sup>th</sup> 2017)*

## INTERMODAL TRANSPORT

### COMMISSION PROPOSES NEW RULES FOR CT - DIR 92/106

The College of Commissioners adopted its proposal to improve Directive 92/106 concerning Combined Transport at its meeting yesterday, 8 November 2017.

This concludes an almost 7-year process during which UIRR was pleading for the upgrade of the Directive that will soon turn quarter-century-old.

The proposed revision will:

- extend the scope to all Combined Transport operations, domestic and border-crossing, performed involving rail, inland waterways and/or maritime shipping;
- clarify the definition of Combined Transport and assist enforcement through clear requirements;
- aid the introduction of productivity enhancing digital technologies by mandating the standardized identification of loading units using the BIC-and ILU-Codes;
- prescribe a regime to facilitate the construction of missing transshipment terminals and the upgrading of existing ones;
- enable state aid measures to compensate the competitiveness gap caused by regulatory imbalances among the different modes of transport;
- establish a reliable scheme for data collection, reporting and the cooperation of competent Member State authorities.

UIRR has closely collaborated with the Commission services during the regulatory fitness test procedure (REFIT) and the stakeholder consultations that preceded the formulation of the proposal, which largely fulfils the expectations of the sector.

The revision of Directive 92/106 should enable the harvesting of low hanging fruits offered by the collaboration of the sustainable modes of transport that would otherwise be unattainable: considerable improvement of energy efficiency of longer distance freight transport, a significant reduction of its

carbon footprint and other pollutant emissions, as well as curtailing of road congestion and accident occurrences.

The high productivity yet attractive jobs of the intermodal transport chain should contribute to easing the labour pressures affecting freight logistics, and ultimately lead to economic competitiveness and the wellbeing of all Europeans.



The legislative process – expected to be concluded within the remaining 18 months of the European Parliament’s current mandate – will be supported by UIRR to refine the proposal to achieve optimal results.

The revised Combined Transport Directive should enter into force over the course of 2020, the year when UIRR celebrates the 50th Anniversary of its founding.

*(from: uirr.com, November 9<sup>th</sup> 2017)*

## TRANSPORT & ENVIRONMENT

### **IMO: PROGRESS MADE IN DEVELOPING GHG STRATEGY FOR INTERNATIONAL SHIPPING**

The second meeting of the Intersessional Working Group on Reduction of Greenhouse Gas (GHG) Emissions from Ships (23-27 October) has made progress in starting to shape a draft initial IMO GHG strategy including refining the vision for IMO, which will express IMO's further commitment to reducing GHG emissions from international shipping.

While the structure of the strategy has been largely agreed, the detailed text to be included is still under discussion.

A wide range of detailed proposals were put forward for inclusion in the draft initial strategy.

These included those relating to the vision, levels of ambition, guiding principles, candidate measures, barriers and supportive measures and follow up actions.



The group agreed that the draft strategy should incorporate a process for its periodic review.

The group agreed that candidate short-term measures could be measures finalized and agreed by the Marine Environment Protection Committee (MEPC) between 2018 and 2023; candidate mid-term measures could be measures finalized and agreed by the MEPC between 2023 and 2030; and candidate long-term measures could be measures finalized and agreed by the MEPC beyond 2030.

Dates of entry into force and when the measure can effectively start to reduce GHG emissions would be defined for each measure individually.

The group supported the need for early action.

The group highlighted the need to consider carefully the potential impact of measures on States, particularly the Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

The group also recognised the need to address barriers and provide supportive measures, including capacity building and technical cooperation; and research and development especially into alternative fuels.

The aim is to reach consensus at the next meeting.

IMO Secretary-General Kitack Lim said, "The working group made some considerable progress in bringing together the proposals for the different elements of the draft IMO GHG strategy.

I am confident that Member States will continue to work on this ahead of the next working group session, to build convergence so that the draft initial IMO GHG strategy can be adopted as planned at the next session of the Marine Environment Protection Committee in April 2018."

The Working Group's report, along with other submissions, will go forward to the third Intersessional Working Group session, scheduled to meet 3-6 April 2018.

The third session is expected to finalize a draft initial IMO GHG strategy, to be put forward for adoption by the Marine Environment Protection Committee (MEPC 72) (9-13 April 2018).

This is in accordance with the timeline set out in the Roadmap for developing a comprehensive IMO strategy on reduction of GHG emissions from ships, which was approved at MEPC 70.

IMO has already adopted global mandatory measures to address the reduction in GHG emissions from ships.

IMO is also executing global technical cooperation projects to support the capacity of States, particularly developing States to implement support energy efficiency in the shipping sector.

The Intersessional Working Group on Reduction of Greenhouse Gas (GHG) Emissions from Ships was attended by more than 200 delegates, from more than 50 Member States.

Participants from international intergovernmental organizations and from a range of international non-governmental organizations in consultative status with IMO also participated in the meeting.

*(from: hellenicshippingnews.com, November 1<sup>st</sup> 2017)*

## INDUSTRY

### Q&A: MCKINSEY EXPLAINS CONTAINER SHIPPING 2067 VISION

The shipping industry is starting a whole new era of disruption as new technologies force players in the maritime supply chain to either digitize or face their demise.

A new report by McKinsey and Company recently predicted what will influence container shipping 50 years from now.

One of its key findings was that by the year 2067 vessels will have reached sizes of up to 50,000 TEU, spurred on by an increase in container trade that will be anything from two to five times greater than it is today.

McKinsey said that the extent to which the industry develops will depend on growth in emerging markets, changing manufacturing footprints, dematerialization of demand, uncertainties in geopolitics and policy.

When it last did the study in 1967, standardized containers were disrupting the shipping business, so the players had to rethink everything.

Now digital processes such as blockchain, big data, and the Internet of Things (IoT) are the new disruptors, with the fourth industrial revolution era presenting a future where technologies such as artificial intelligence dominate our supply chains.

Another factor is that more emerging markets – China and India in particular – are growing faster than the rich-world economies, resulting in converging global incomes.

Is it time to rethink everything again?

Port Technology's Laurence Doe spoke to Steve Saxon, a partner in McKinsey's Shanghai office, and Matt Stone, a consultant in the London office, the authors of the 'Container shipping: The next 50 years' report, to find out more.

*The report describes a "modular, dronelike floating container" concept. Can you explain this?*

The industry's boom-bust dynamic stems from the lumpiness of its supply – that is, larger and larger vessels.

Unless the industry can introduce more modularity, the boom-bust dynamic will remain an issue.

On a 50-year timescale, admittedly outlandish ideas like floating autonomous containers might be possible.

Of course, this would require massive advances in energy storage and small-scale propulsion as well as racking solutions that protect cargo from turbulent seas.

*Why will container flows continue to grow rapidly in the Middle East, Africa and Asia?*

Intra-Asian container trade flows are today the largest of any major trade lane.

Given the concentration of population and economic activity in East Asia, this is not a surprise.



And, given their size and with the right policy mix, it is possible to imagine India as the next great hub of offshored manufacturing, followed by Africa.

Eventually, the most significant

manufacturing value chains might stretch from Africa to South Asia to South East Asia and China – and with it will come the need for container shipping.

*When do you think freight forwarding will become virtually extinct?*

The jury is out on the future of freight forwarding as a standalone business.

The “winner” will be whoever can provide the digital interface and the system to optimize cargo flows across multiple providers.

It might be a digital giant, an incumbent liner, or indeed even one of today’s freight forwarders.

The question is, who digitizes the fastest and delivers the most seamless experience to customers?

There is no doubt that blockchain can help significantly reduce the paper flow that freight forwarders manage today, and AI may play a role in terms of optimizing cargo flows across the value chain.

But a freight forwarder may or may not be the first to apply these tools effectively.

*Do you think that drones or another technology will have a significant impact on the trucking industry?*

Over time, there might be a threat from flying drones that can cost-effectively lift and transport larger volumes of goods, but this is still many, many years into the future.

The most obvious ways for trucking to remain competitive are autonomous trucks, electric-drive trucks, and deeper integration with digital platforms – the “Uber-ization” of the industry.

This latter effect will undermine the profitability of many of today’s players while helping trucking to remain relevant on the whole.

*Can you define the shipping customer of 2067 in more detail?*

We posit that some customers in 2067 will continue to be very price-conscious and will continue to want a minimum level of service for the lowest possible cost.

However, other customers in 2067 will want the seamless integration of real-time data about their cargoes, regardless of who is carrying or moving them, in their supply chain management systems – a level of omniscience that is nearly impossible today.

*(from: porttechnology.org, November 9<sup>th</sup> 2017)*

## LOGISTICS

### ECOMMERCE AND AMAZON ARE CHANGING THE PERISHABLES LOGISTICS MARKET

“Perishables are changing.

Every day, something new comes.

People want their products faster and cheaper,” according to Rodrigo De Narvaez, director business development for 21 Air.

He believes ecommerce has changed the expectations of shoppers – whether buying online or not – and therefore the requirements of retailers, which has begun to impact perishables logistics.

Speaking at Air & Sea Cargo Americas last week in Miami, he explained that he had seen avocados and even potatoes air freighted recently, despite their weight.

“Ecommerce has sped up transit times – people want the product faster and fresher.”

One of the ramifications is that carriers must now learn about requirements for products that they are not used to carrying.

“We have never carried potatoes before – we didn’t know the product at all.

The industry has to get together with producers and agents and learn about new products.”

Robert Fay, president of Florida Freezer, added that Amazon’s entry into food had also altered the market.

“There is a significant paradigm shift in the way that consumers buy food.

And Amazon has significant resources to make inroads.

But it will also rely on supply chain providers for the things it can’t do – it can’t do it all.”

Mr De Narvaez added that “logistics has to change.

Margins are getting so thin for the producer and grower”.

He recommended more direct transport with fewer stages – and handlers – in between.

Instead of flying Europe’s perishable imports via the Netherlands, which was said to handle 80%, he had found leisure flights between South American and the Caribbean to Europe more efficient – and allowed for higher margins.

“Why send it to Amsterdam and truck it to Rome, when you can go direct to Rome?

People are starting to understand that they can have fresh food anywhere.”



He also noted that very different buying habits in the US and Europe had an impact on perishables logistics.

“The biggest difference between the US and Europe is the size of the fridge.

Europeans have smaller fridges and tend to go to the market every day or two.

In the US, they buy huge quantities and only need to go once a month.”

He added that this also affected demand for ripeness: in the US, buyers want their flowers closed; in Europe, they prefer to buy them already opened, more often.

“If it’s in the fridge for a month, it’s no longer perishable.

But ecommerce has meant time is of the essence – if I can’t supply goods as fast as Amazon, then I am not as good.”

He added that there were also fewer, but larger, US importers, which put additional pressure on margins and risk.

“A British importer will have many more events in a month – the US takes cargo less often.

And there are fewer importers with bigger volumes.

I would rather carry 100 tonnes for six or seven customers; I'd rather have six people owe me money than one.

More importers with smaller bundles gives me more flexibility.”

*(from: theloadstar.co.uk, November 6<sup>th</sup> 2017)*

## STUDIES & RESEARCH

### **SHIP OPERATING COSTS ARE SET TO INCREASE FOR 2017 AND 2018**

Vessel operating costs are expected to rise in both 2017 and 2018, according to our latest survey.

Repairs & maintenance and spares are the cost categories which are likely to increase most significantly in each of the two years.

The survey is based on responses from key players in the international shipping industry, predominantly shipowners and managers in Europe and Asia.

Those responses revealed that vessel operating costs are likely to rise by 2.1% in 2017 and by 2.4% in 2018.

The cost of repairs & maintenance is expected to increase by 2.0% in both 2017 and 2018, while expenditure on spares is predicted to rise by 2.0% in 2017 and by 1.9% in 2018.

Drydocking expenditure, meanwhile, is expected to increase by 1.7% and 1.8% in 2017 and 2018 respectively.

The survey revealed that the outlay on crew wages is expected to increase by 1.7% in each of the years under review, with other crew costs thought likely to go up by 1.6% in 2017 and 1.5% in 2018.

The increase in expenditure for lubricants is expected to be 1.6% in both 2017 and 2018.

Meanwhile, projected increases in stores are 1.5% and 1.7% in the two years under review, while management fees are expected to rise by 0.7% and 1.0% in 2017 and 2018 respectively.

The cost of hull and machinery insurance is predicted to rise by 0.5% and 1.0% in 2017 and 2018 respectively, while for P&I insurance the projected increases are 0.7% and 1.1% respectively.

The predicted overall cost increases were highest in the offshore sector, where they averaged 4.8% and 3.8% respectively for 2017 and 2018.

By way of contrast, predicted cost increases in the container ship sector were just 1.1% and 0.8% for the corresponding years.

Operating costs for bulk carriers, meanwhile, are expected to rise by 1.9% in 2017, and by 2.4% the following year, while the corresponding figures for tankers are 2.1% and 2.7%.

Respondents to the survey highlighted various areas of concern likely to result in increased operating costs over the next two years.

Crew costs were high on the list, with one respondent noting, "Crew costs are 60% of our operating expenditure, and weigh heavily when there is high demand for – but a limited supply of – manpower and when employers are required to meet increasingly onerous requirements."

Another noted, "Crew and insurance related expenses are the two major factors in our operating expenses but, while we expect insurance costs to fall over the next two years, we anticipate that crew costs will remain the same."

Another still said, "Most shipping companies, but especially those operating tankers and chemical and gas carriers, are facing the prospect of increases in costs through 2018 for hiring qualified crew."

The increasing cost of regulatory compliance was referenced by a number of



respondents, one of whom said, "New regulations are certainly going to have a major impact on our operating costs."

Elsewhere it was noted, "Retrofitting vessels with technology which has not been fully vetted for

compliance with existing and new regulation can destroy cashflow."

One respondent in the offshore sector, meanwhile, emphasised, "There is a constant trend in terms of charter hire, whereby earnings are gradually going down while expenses under different heads are following an upward trend."

Another respondent commented, "We do not expect income to increase significantly over the next 12 months, which in turn will limit the available budget for operating expenses."

Other respondents, too, expressed doubts about factors which are likely to constrain their earning capacity at a time when operating costs are increasing.

Areas of concern included such familiar items as continued tonnage overcapacity in some trades and the cost of finance.

One respondent said, "Excess capacity, and the amalgamation and acquisition of existing operators and assets, could lead to a market which is shared by a small number of operators."

Another complained, "Over supply of tonnage, most notably that built in China, has caused a significant fall in charter hire."

Other, more general, comments, included, "Markets across the board will be nervous, with sharp ups and downs," and: "Prospects look gloomy, with no clear horizon in sight."

Respondents were asked to identify the three factors that would most affect operating costs over the next 12 months.

Overall, 21% of respondents (similar to last year's survey) identified finance costs as the most significant factor, followed by crew supply, which stood at 19% and displaced competition in second place.

Competition itself was down from 19% to 15% and from second to equal third place, which it shared with the cost of new regulations, which was included in the survey for the first time.

Demand trends and raw material costs, meanwhile, shared fourth place at 10%, with labour costs fifth at 9%, all significantly down on the figures in last year's survey, which were respectively 17%, 11% and 13%.

Richard Greiner, Partner, Shipping & Transport, says, "The predicted 2.1% and 2.4% increases in operating costs for 2017 and 2018 respectively compare to an average fall in actual operating costs in 2016 of 1.1% across all main ship types recorded in our recent OpCost study."

One year ago, expectations of operating cost increases in 2017 averaged 2.5%, so the fall now in that expectation to 2.1% must be regarded as good news.

Predicted increases in operating expenditure are a matter of concern for any industry, and particularly one such as shipping in which a range of factors have conjoined in recent years to inhibit (and, in some cases, eradicate) profit margins.

But shipping has seen a lot worse.

If it does transpire that operating costs rise by 2.4% in 2018, for example, that will still be less than one-sixth of the actual operating cost increases absorbed by the industry ten years previously.

It is significant that, for the first time, new regulations were included in the list of factors which respondents could cite as most likely to influence the level of operating costs over the next 12 months.

It was even more significant, perhaps, that 15% of respondents did indeed identify the cost of regulatory compliance as a major consideration when weighing future operating cost increases.

The Ballast Water Management convention, now with an extended implementation window, is still potentially the most expensive item on the menu, but by no means the only one.

Tellingly, one respondent referred to new regulations which “most of the time are unclear and indefinite”.

The fact that repairs & maintenance and spares emerged as the items with the largest projected cost increases in both 2017 and 2018 was perhaps unsurprising in that they are two items of expenditure on which owners and operators might conceivably have economised or delayed in previous years, and such economies cannot be sustained over longer periods without impacting safety.

Elsewhere, there were some interesting predicted cost increases in the individual market sectors.

The offshore industry, for example, is predicted to be facing increases of 3.5% in crew wages for 2018, compared to the 1.4% predicted for bulkers and the 0.7% for container ships.

Indeed, the offshore sector is facing the biggest increases in operating costs in the next two years in every category of expenditure covered by the survey.

Offshore is going to be a challenging sector for operators and investors alike for some time to come, and the survey reveals exactly why a year can be a long time in shipping.

In last year’s Future Operating Costs report, the container ship sector led the way in terms of the highest predicted overall cost increases for 2016 and 2017, with the offshore sector returning the lowest figures.

Now, the position is completely reversed, with container ships expected to have to bear increased costs in 2017 which are little more than one-fifth of those expected to be encountered by offshore operators.

It was evident from the responses to our survey that the shipping sector is concerned about the conflation of higher operating costs and the potential reduction in revenue earning opportunities which it faces over the next two years.

As one respondent succinctly observed: "The problem with shipping is not so much costs, but income."

There is certainly some truth in that.

Shipping has gone through – and is still navigating – a prolonged downturn.

It is a cyclical industry, but cycles imply movement both up and down, and there has not been enough of the former in recent years.

The cyclical nature of the industry also increases volatility in the likes of charter rates and vessel values which may adversely affect earnings.

There is however, evidence to support the view that an appetite still exists for ongoing investment from both traditional and external investors, supported by a number of recent indicators of positive sentiment.

This is in an industry whose attractions currently include low prices and comparatively limited ordering of new tonnage.

That is good news, because it is such investment that shipping will need if it is to meet the rising cost of operating in the industry.

(Source: Moore Stephens).

*(from: [hellenicshippingnews.com/moorestephens.com](http://hellenicshippingnews.com/moorestephens.com), October 30<sup>th</sup> 2017)*

## REEFER

### THE SCIENTIST WHO TRAVELED THE WORLD IN A SHIPPING CONTAINER TO STUDY COLD STORAGE

Shortly after graduating from Cornell University, Barbara Pratt was hired in 1977 by shipping company Sea-Land (now Maersk) to build a laboratory inside a standard shipping container.

For years she traveled around the world inside of it, figuring out how best to ensure that perishable goods remained fresh on long journeys.

Today, Pratt directs refrigerated technical services for Maersk North America.

The following has been condensed and edited for clarity:

“The laboratory we built was three different compartments: it had what we called an engine room where we had a diesel fuel tank, a diesel generator for power, a water tank, a hot water heater... We had a laboratory section which was in the middle which had your typical equipment but it also had things like a gas chromatograph, a computer, a fume hood, and a microscope—those types of things.

And then we had an office section which had bunk beds in it, and a couple of desks and cabinets, a microwave, and a refrigerator.

Once the laboratory was completed, our first project was working trying to improve the turnout of cocoa

Barbara Pratt,  
director of  
refrigerated services  
of Maersk, working  
in a laboratory built  
in a shipping  
container ca. 1978.



beans that were moving from the Dominican Republic to United States.

The beans themselves were ending up moldy, had mold on them by the time they got to destination or were put in the warehouse.

What happens typically is when the sun comes up the temperature increases inside a dry container, that would create a mini oven, and that draws the moisture out of the beans... And what happens when sun goes down at the end of the day, the water then condenses out of the air because the air temperature changes.

It would then become water droplets [and] drop onto the bags of cocoa beans, and when you have excess moisture you would then have mold growing.

We ran a number of tests, and the end result was we came up with a new container design which ultimately was patented, which provided some paths of ventilation, and helped improve the out-turn of the beans.

Over the next number of years we worked on various different commodities—almost any commodity that moves today: we worked on pineapples, watermelons, tomatoes, peppers, bananas, all kinds of perishables, trying to see if we could extend the shelf life of those products and carry them, say, for two weeks' transit, instead of one.

Part of the reason ages ago we had to stay in the container was the unknown reliability of the computers that we were working with at the time.

Today, with the state of the industry and the microprocessors that exist today, it's possible to monitor what's happening remotely—whereas I had to stay with the containers to monitor what was going inside them when they were only 20 or 30 feet from me, today that can all be done remotely.

The use of microprocessors and computers gives us the ability to analyze and figure out what's going on with a lot more power than what we used to have.

In the future, I think that there's going to be a continued focus on quality, on wanting to know if there was a problem with something, being able to react faster, being able to know what to do.

For example, if you were planning on moving into a market and holding the product there for four months, if you know that there's a problem with your product, maybe you move it into the market faster and sell it in the first month instead of four months later.

I don't think that will be true for every commodity and I don't think it will be true for every single shipper.

Some of the higher cost items like pharma, they have been moved by air, now they can move some on the water because they can monitor these remotely, and there's GDP regulations and food regulations that are in existence and are being evolved and the AI.

When it comes to the consumer, maybe they're okay with only eating grapes for six months of the year, but I think the consumer over the last 20 years has got used to going to the store and getting more than pickles, potatoes and dried meat.

They're used to fruits and vegetables—they want fruits and vegetables—and their economies are such that they can afford the fruits and vegetables.

There are some economies that want more protein, and those markets are going to need to be balanced with the cost it takes to get the products to markets.

Maybe 98% of commodities we move today move without [damage] claims.

It's the last 2% that I'm excited about working on."

*(from: [theloadstar.co.uk/qz.com](http://theloadstar.co.uk/qz.com), November 3<sup>rd</sup> 2017)*

## SAFETY & SECURITY

### **INCE & CO WARNS OF "EVOLVING AND EXPANDING CYBER-THREAT" FOR SHIPPING AND LOGISTICS INDUSTRIES**

Leading international law firm Ince & Co has advised shipping and transportation companies to prepare for more cyber-attacks in the wake of recent high-profile incidents.

Following the widespread impact and disruption caused by the WannaCry and NotPetya attacks earlier this year, a spate of incidents in the recent weeks has highlighted the evolving threat to not only shipping companies, but other parts of the supply chain.

Shipping company BW Group revealed last month that it was hacked in July, causing its computer systems to go offline.

In addition, so-called ethical hackers claimed to identify security flaws in the onboard satcom boxes of satellite communications company KVH, whilst a cyber-security specialist reported on vulnerabilities in Inmarsat's shipboard communications platform.

Both KVH and Inmarsat have since responded to these claims.

According to Ince & Co, the root cause of this challenge is that increasing digitalisation, advances in satellite communications, and a drive towards greater technological efficiencies all increase the risks for owners and operators rushing for the benefits, without considering the side effects.

Rory Macfarlane, Partner, Ince & Co Hong Kong, commented: "Throughout 2017, we have seen headline-worthy cyber-attacks occur with growing frequency and severity.

A number of high-profile companies have already fallen foul of the risks posed by the increasing digitalisation of our industry.

As new technologies emerge to streamline operations, cut costs and increase efficiencies, evolving and expanding cyber-threats also emerge.

It is imperative that shipping companies act to mitigate their cyber-risk now, before they become the next victim of a major breach."

### *Recent incidents*

Rory Macfarlane points to the WannaCry and NotPetya ransomware attacks as examples of the type of threat facing the shipping industry: “The effects of the NotPetya and WannaCry ransomware attacks proved a potent example of how costly a large scale, sophisticated cyber-attack can be, but for those working within cyber-security, these attacks did not come as a surprise.

With operations impacted, there was an obvious financial cost to these incidents.

But the reputational damage could prove more serious.

We have seen hard-earned track records for compliance and operational excellence all but evaporate in the event of a public breach.

While the costs of this type of damage are hard to quantify, it adds yet another reason to invest in appropriate cyber-security systems and employee education.”

### *Cyber-attack versus cyber-breach*

Rory Macfarlane also highlights the difference between ‘cyber-attack’ and ‘cyber-breach’: “Businesses must recognise a simple fact: there will be – or has already been – a cyber-attack on your business.



But a cyber-attack being inevitable does not mean a ‘company-ending’ cyber-breach will be.

Companies that make honest assessments of their businesses and get on the front foot will be able to mitigate their cyber-risk dramatically.

Those who decide to ‘wait and see’ will have a rude awakening as these kinds of risks continue to develop.

What we see now is the tip of the iceberg.

The size of the threat is underplayed due to a reluctance within the industry for victims of a breach to share their experiences for the collective good.

Moreover, as it is common for cyber-criminals to remain in a company's system for up to six months after an initial breach, waiting for the most appropriate moment to strike, there will be businesses that are about to suffer a loss and do not realise it.

To be sure in the security of their systems, companies must begin to develop comprehensive security and response plans as soon as they can.

The response plans should outline the steps to take in the minutes, hours, days and weeks after a breach.

We also recommend that companies engage with a multi-disciplinary team that is ready to step into action, including IT teams, compliance experts, fleet managers and shoreside staff."

### *Proactivity remains key*

Rory Macfarlane advocates a proactive approach for concerned owners and operators: "In the world of cyber-prevention, by far the best form of defence against cyber-crime lies in a concerted, top-down effort to planning and prevention.

Indeed, board members should be aware that an unprevented cyber-breach could constitute an abdication of fiduciary duty, if mitigating measures were ignored or not put in place.

Ince & Co is working with the leading cyber-security team at Navigant to offer a cyber 'health-check'.

In this health-check, we work with companies to create a written assessment of IT policies and procedures, employee protocols, regulatory and contractual obligations, insurance cover against losses following a cyber-attack, and evaluate cyber-response plans.

This is not a 'one-size-fits-all process' – a bespoke approach is needed for each company as they continue to digitalise their operations.

The message is simple: improving your cyber protection need not be costly.

Significant improvements can be made for a modest investment.

But prevention is always better than a cure, and the creation of a culture of cyber-security is essential.

Shipping is on the cusp of dramatic evolutions in how business is conducted, goods are moved and deals are sealed.

But as we embrace all of the benefits new technology has to offer, it is only right that we also examine the risks, lest we fall foul of them ourselves.”

*Final thought – the next step?*

“It may be time for the focus of the debate to shift from cyber-security to cyber-preparedness.

As the amount and sophistication of attacks increase, and the digital and human attack surface expands, the chances of permanently keeping threat actors out of our businesses is diminishing month on month.

Even a cursory glance at the list of blue-chip businesses, both within and outside shipping, who have suffered huge losses from significant cyber-events should dispel the myth that seems to remain in the boardroom that “this could not happen to us”.

Implementing measures that will minimise the harm that can be done once your systems are hacked is crucial.”

*(from: hellenicshippingnews.com, November 7<sup>th</sup> 2017)*

## ON THE CALENDAR

- 29/11/2017 – 30/11/2017      Abidjan      18th Intermodal Africa 2017
- 24/01/2018 – 25/01/2018      Mauritius      12th Indian Ocean Ports and Logistics 2018
- 07/03/2018 – 09/03/2018      Padova      Green Logistics Expo
- 28/03/2018 - 29/03/2018      Beira      19th Intermodal Africa 2018
- 18/04/2018 - 19/04/2018      Livorno      6th MED Ports 2018
- 30/05/2018 - 31/05/2018      Varna      7th Black Sea Ports and Shipping 2018
- 04/07/2018 – 05/07/2018      Johor      16th ASEAN Ports & Shipping 2018
- 24/09/2018 – 29/09/2018      Napoli      Naples Shipping Week 2018
- 26/09/2018 – 27/09/2018      Riga      2nd Baltic Sea Ports & Shipping 2018
- 24/10/2018 – 25/10/2018      Aqaba      15th Trans Middle East 2018
- 28/11/2018 – 29/11/2018      Accra      20th Intermodal Africa 2018
- 30/01/2019 – 31/01/2019      Kuwait City      16th Trans Middle East 2019
- 20/02/2019 – 21/02/2019      Manila      10th Philippine Ports and Shipping 2019
- 20/03/2019 – 21/03/2019      Mombasa      21st 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.