

# Newsletter

May 31<sup>st</sup> 2018

*Link road, rail, sea!*

Council Of Intermodal Shipping Consultants



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**May 31<sup>st</sup> 2018**

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>

## PORTS AND TERMINALS

### **BRITISH PORTS CALL FOR INFRASTRUCTURE INVESTMENT TO MATCH EU GRANTS POST-BREXIT**

As the European ports industry gathers in Rotterdam this week for the European Sea Ports Organisation (ESPO) Annual Conference, the British Ports Association has urged the UK Government to ensure that public transport and infrastructure funding are increased post-Brexit to help UK freight operators and ports compete.

As the Article 50 discussions continue there is still no clear picture if the UK will look to prioritise investment in the transport network or replicate EU funding models.

The Association is keen that UK policymakers push pro-investment transport strategies in a similar way to the TEN-T programme or even to mirror schemes such as the Motorways of the Sea programme and the European Maritime Fisheries Fund.

Speaking on the eve of the ESPO Conference the British Ports Association's Chief Executive Richard Ballantyne said: "The UK ports industry is a competitive sector.

What our ports look for is an efficient planning system and a good national transport network.

In recent weeks a number of European transport associations have come together to call on the European Commission to increase transport budgets in the Connecting Europe Facility for the 2021-2027 period.

UK policymakers should not overlook TEN-T and indeed examine ways to increase investments in our transport network.

It is essential for logistics operators that the UK has an efficient transport and freight network and that our ports are able to compete globally."

The Ljubljana Declaration was presented to the European Budget Commissioner Günther Oettinger, by the MFF4Transport coalition at the TEN-T Days event last month and a recent study for ESPO has highlighted the infrastructure needs of EU ports.

This was shortly before the European Commission published its Multiannual Financial Framework for the 2021-2027 period which is expected to be the first EU budgetary term without the UK.

Mr Ballantyne continued: "In the coming years, it is likely that the EU's Connecting Europe Facility will be used to target the hinterland network connectivity challenges for many European ports and it will be important that the UK is not left behind.

## British Ports Association



There has rightly been much attention on the potential impacts of new border controls on some UK-EU routes but other factors such as long-term post-Brexit transport plans and infrastructure investment should not be ignored.

The UK Department for Transport recently published the results of its Port Connectivity Study which highlighted that ports are often not factored into transport and wider Government decisions.

This must be corrected.

Ports are vital international gateways and they will have an important role facilitating our new post-Brexit trade strategy so it is essential that they are well connected to national networks and markets."

The 15th ESPO Conference is hosted by the Port of Rotterdam and takes place on 31 May and 1 June.

The theme of the Conference is 'Investing in the Port of Tomorrow' and Mr Ballantyne is chairing the session on port developments at the event.

The 'Building Acceptance for Further Port Development' session examining sustainable growth, stakeholder relations and cost-benefit analysis for ports.

*(from: hellenicshippingnews.com, May 30<sup>th</sup> 2018)*

## MARITIME TRANSPORT

### OCEAN FREIGHT RATES STABLE AHEAD OF SUMMER PEAK SEASON

Ocean freight rates are relatively stable and slot availability seems ample on front haul container trades ahead of the summer peak season.

However, there are mixed expectations on whether spot rates could soon rise on key trades, including China-Europe, and rising fuel costs are also set to become a factor.

The World Container Index, assessed by Drewry, fell 1.1% this week and languishes 6.6% lower than a year ago.

Rates from Shanghai to New York decreased by \$10 to reach \$2,462 per FEU, while rates from Shanghai to Los Angeles dropped to \$1,358, a change of \$39 per TEU.

Digital container freight platform Freightos also said that transpacific headhaul rates remained soft, with CEO and founder Zvi Schreiber noting that "despite recent speculation, it's premature to talk of ocean freights recovering".

He added: "Rates for China East Asia to North America West Coast and also to the East Coast continue to lag year on year.

In fact, last week was the 37th straight week of year-on-year lags for both lanes.

And while it's true that most lanes' rates are marginally up when compared with 2016, that was the year when ocean freight rates choked.

"Given current dynamics, I don't anticipate that there will be any significant increases lasting more than one week until we get to peak season."

Freightos said the Global Container Index shed one percentage point this week to fall from \$1,268/FEU to \$1,261, driven by the Transpacific where China/East Asia to North America West Coast rates dropped 4%, and China/East Asia to East Coast rates declined 2%.

However, not all analysts view container shipping's main trades through a bearish lens.

Freight forwarder Flexport reported yesterday that space was “tight” and “steady” on Asia-US West Coast and Asia-US East Coast services.

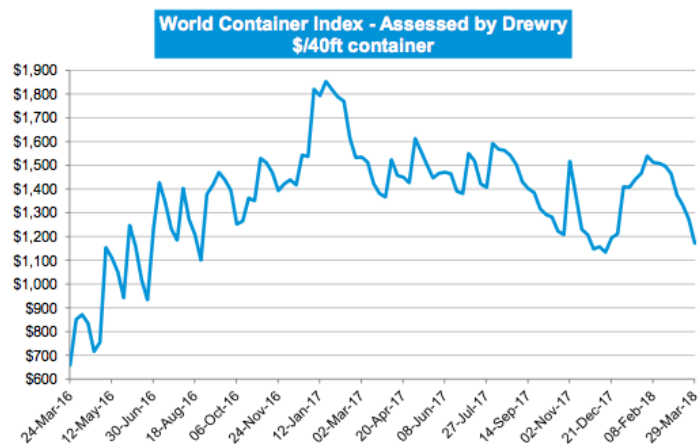
The planned 15 May General Rate Increases (GRIs) have now been postponed on both transpacific headhaul trades, but new GRIs have been announced by lines starting 31May.

Analysts also differed on their respective readings of freight activity on Asia-Europe headhaul services.

Drewry said yesterday that Shanghai-Genoa and Shanghai-Rotterdam rates had both dropped 1% week-on-week and were now 10% and 18% lower, respectively, than a year ago.

But Flexport said it had seen signs that the Asia-Europe freight market was tightening.

“Rates started to noticeably increase beginning on May 1 with the partial implementations of the GRI,” it said in a market update last night.



“Space is open, but there have been a number of disruptions and omissions due to weather.”

Elsewhere, Flexport said Europe-US West Coast and Europe-US East Coast services were both seeing “steady” rates with the potential to increase over the week ahead.

It told shippers to book around two weeks in advance for both trades, adding that GRIs had been announced by lines for 1 July.

Flexport also said exports from the US west coast were surging as shippers prepared for trade restrictions.

“California ports experienced a 13-month high for exports to Asia.

Los Angeles and Long Beach, the biggest US West Coast ports, reported that loaded container exports increased 12% year-over-year in April from a year ago,” said Flexport.

It cited an international trade economist based in California who said anxiety was driving the export trade because of uncertainties and concerns about possible new tariffs, adding: “Shippers want to get their goods on the high seas and to their final destinations before the gates close on US exports.”

As reported in Lloyd's Loading List, rising fuel costs also set to become a factor.

For example, Mediterranean Shipping Co (MSC) is imposing a bunker surcharge due to a sharp jump in fuel prices, which are up more than 30% this year, and almost 70% since last June.

With crude oil today hovering around \$80 a barrel — the highest since 2014 — it said the situation was “no longer sustainable without emergency action”.

MSC's worldwide emergency bunker surcharge applies to all ocean and land-based cargo carriage with immediately but is only temporary.

And as reported today in Lloyd's Loading List, container shipping executives have begun calling for the supply chain to share the burden of rising fuel costs, which is otherwise set to deliver the container shipping sector with an economic hit of the value of \$10 billion.

Carriers say there is little scope for further deceleration of vessel speeds — which are seen as the 'last resort' for lines.

*(from: lloydsloadinglist.com, May 25<sup>th</sup> 2018)*



## RAIL TRANSPORT

### EGYPT LOOKS TO BUILD RAIL LINKS BETWEEN MEDITERRANEAN AND RED SEA PORTS

Egyptian officials said they plan to construct a railroad line connecting the Red Sea with the Mediterranean via a land bridge.

The project aims to speed up the movement of people and goods between the two seas to create greater links between upper and lower Egypt, as well as build rail links between Egypt and Jordan.

The first phase of the line is to connect the Port of Alexandria in northern Egypt with the Port of Damietta, more than 200km to the east.



The second phase would stretch more than 500km from the Port of Damietta to the Port of Nuweiba, a coastal town in the eastern part of the Sinai Peninsula.

That would effectively link Egypt's Mediterranean region

with the Red Sea region.

A major logistics zone is to be established close to the Port of Nuweiba.

An inland terminal for freight distribution is also planned.

"This is a huge project that will take the transport of goods and people in our country many steps forward," said Mohamed Ezz, Egyptian Ministry of Transport spokesman.

"This will be the first time the Red Sea and the Mediterranean will be connected via a means of land transport."

The Ministry of Transport said a financial and technical assessment of the project was expected to be ready within four months.

Construction of the new railroad is estimated to cost around \$3.1 billion, which Egypt will find difficult to bear while implementing economic reforms.

Transport Minister Hasham Arafat on April 27 said the ministry would invite international consortiums to submit bids to construct the new line in July.

The new railroad would provide an alternate route between the Mediterranean and the Red Sea to the Suez Canal.

Sinai will be at the centre of the project, which will link the Mediterranean ports of Alexandria and Damietta to the Port of Nuweiba in the Sinai Peninsula.

Egypt said the railroad would be used in the transport of materials necessary for the rebuilding of Iraq and Syria.

Observers said the project could be in response to an Israeli plan to circumvent the Suez Canal with a rail freight link between the Mediterranean and the Red Sea.

The Israeli plan, which was unveiled in February 2014, envisages a rail line of approximately 300km from the Israeli Port of Eilat on the Red Sea to the Port of Ashdod on the Mediterranean.

The "Red-Med" project was estimated to cost about \$2 billion.

The plan to construct Red-Med was made at a time of high tension in Sinai, where terrorists affiliated with the Islamic State (ISIS) fired on a Chinese container ship in the canal.

In April 2017, Israel said it would construct a "Tracks for Peace" railway line to give Jordan, Saudi Arabia and Iraq access to the Mediterranean.

That link, Tel Aviv said, would extend from the Port of Haifa on the Mediterranean to Jordan, into Saudi Arabia and to the Arab Gulf.

Israeli officials said the project would offer an alternative route to the Suez Canal and the Bab el Mandeb Strait, amid concerns over Iranian threats to close the Strait of Hormuz.

However, Cairo's planned train link between the Mediterranean and the Red Sea could circumvent Israeli plans.

"By all means, the Egyptian project will substitute the Israeli projects and provide the necessary speed connection between the Red Sea and the Mediterranean," said Nourhan al-Sheikh, a professor of international relations at Cairo University.

"The same link can be used to give our brothers in the Gulf access to the Mediterranean in case Iran closes off the Strait of Hormuz as it threatens every now and then."

Egypt has tried to enhance the Suez Canal by digging a parallel channel, reducing transit time and easing crowded conditions while allowing giant container ships and vessels to use the canal.

The planned train link would move transportation between the Red Sea and the Mediterranean many steps further.

Apart from cutting down transportation time, the new link could serve as the nucleus of an aspiring train connection between North Africa and the Arab Peninsula, experts said.

"The new project will give Egypt an advanced position on the international shipping map," said maritime transport expert Ahmed al-Shami.

"It integrates the railways into the port business, which will ease transport from the ports to other places."

"The new train link will cause goods to travel the distance between the Red Sea and the Mediterranean in just 3 hours," Ezz said.

"Its construction amounts to the digging of a new Suez Canal, which is a very big thing to do."

*(from: thearabweekly.com, May 20<sup>th</sup> 2018)*

## ROAD TRANSPORT

### EU TARGET OF 30% CUT IN TRUCK EMISSIONS BY 2030 'TOO AGGRESSIVE'

The EU took a step towards its first CO<sub>2</sub> standards for trucks this week.

The commission's proposals aim for a 30% reduction in emissions by 2030, and it should come as no surprise that industry representatives describe the move as "far too aggressive".

Reuters reports in full.

\* \* \*

New large trucks in the European Union will have to emit at least 30 percent less CO<sub>2</sub> by 2030 than in 2019 under the bloc's first ever CO<sub>2</sub> standards for trucks proposed on Thursday that the industry said were "far too aggressive".

The EU currently has no limits on the CO<sub>2</sub> produced by trucks, which account for a quarter of all road transport emissions while making up just 5 percent of vehicles on the road.

Countries such as the United States, China, Japan and Canada have already set targets to reduce truck CO<sub>2</sub> emissions.

The European Commission has proposed an interim CO<sub>2</sub> reduction target of 15 percent by 2025 for all large trucks compared to 2019 levels.



By 2030 trucks will have to emit at least 30 percent less CO<sub>2</sub> than in 2019.

Europe's auto lobby ACEA said the reduction levels proposed were "far too aggressive".

"It would seem as though the Commission has simply taken the exact CO<sub>2</sub> reduction levels it already proposed for cars and vans, and applied them directly to heavy-duty vehicles, without fully recognizing the fundamental

differences between these vehicle segments,” Erik Jonnaert, ACEA Secretary General, said.

ACEA had lobbied for a 16 percent tail-pipe CO<sub>2</sub> reduction between 2019 and 2030, with an intermediate target of 7 percent in 2025.

Large trucks account for around 65-70 percent of all CO<sub>2</sub> emissions from heavy-duty vehicles in the EU, which also include smaller trucks, buses and coaches.

The Commission will conduct a review in 2022 to extend the standards to other types of heavy-duty vehicles and determine their target for 2030.

The EU by 2030 wants to cut emissions across all sectors of the economy by at least 40 percent versus 1990 levels.

Thursday’s proposal follows new draft rules on CO<sub>2</sub> standards for cars.

“All sectors must contribute to meet our climate commitments under the Paris Agreement,” said Miguel Arias Canete, EU Commissioner for climate action and energy.

“That’s why, for the first time ever, we are proposing EU standards to increase fuel efficiency and reduce emissions from new heavy-duty vehicles.”

Environmental campaign group Transport & Environment (T&E) said the proposed targets fell short of what was needed to hit the EU’s own climate goals.

Some EU countries and hauliers had called for a 2025 target of at least 24 percent and a 2030 target of 34-45 percent.

Stef Cornelis, cleaner trucks officer with T&E, said the proposed standards mean “a lot of cost-effective clean technologies won’t be fitted to new trucks, which will result in truckers and the climate missing out on big savings.”

The Commission expects its targets to save around 54 million tonnes of CO<sub>2</sub> from 2020 to 2030, equivalent to the total annual emissions of Sweden.

The proposal will need to be approved by EU governments and the European Parliament before becoming law.

The Commission also proposed an action plan for the production of battery cells for electric cars as part of its drive to slash transport emissions.

Europe lags behind countries such as China, South Korea and Japan in the production of batteries for electric vehicles and the European car industry has



warned that the rush to electric cars would hand even more business to those countries.

The Commission's measures include support for securing access to the raw materials needed to build batteries, developing the necessary skills for the manufacturing processes and investment in research and innovation for electro-mobility.

*(from: [theloadstar.co.uk/reuters.com](http://theloadstar.co.uk/reuters.com), May 17<sup>th</sup> 2018)*

## INTERMODAL TRANSPORT

### JOINT EFFORT TO EXTEND "BELT AND ROAD" NETWORK - DIRECT LINE TO THE FAR EAST

The strategic project of the New Silk Road is of particular importance to ÖBB.

With the first direct freight train from China to Vienna, Rail Cargo Group (RCG) - ÖBB's freight division - successfully launched its next train connection between Asia and Europe.

A Memorandum of Understanding (MoU) has now been signed between Rail Cargo Group and DHL Global Forwarding with the aim of establishing regular connections along the Eurasian corridor.

#### *Opportunities of the One Belt – One Road Initiative*

The New Silk Road consists of three routes: an in essence already existing Northern land link through the Central Asian states via Moscow and a Southern land link via Iran and Turkey to Europe.

There is also a sea connection via the South China Sea, the Indian Ocean and the Red Sea to the European Mediterranean ports.

The scale of the project is fascinating: 65 countries with a population of 4.4 billion people are located in the catchment area of the New Silk Road.

Figures of up to 1.3 trillion dollars are cited as the investment volume.

#### *Perfect interaction*

The New Silk Road holds enormous potential for the Austrian economy and direct access to a rapidly growing market.

A major advantage for rail transport is that it is environmentally friendly, cheaper than air freight and faster than sea freight.

The aim is to achieve a transport duration of around 10 days until the year 2020.

DHL and RCG have already handled the first direct train from China to Austria.

With the intensified cooperation, new connections between Europe and Asia will be implemented.

A Memorandum of Understanding has now been signed between Thomas Kargl, Board Member for Sales of Rail Cargo Group, and Steve Huang, CEO, DHL Global Forwarding Greater China.

“Trade between China and Austria is booming.

This makes it all the more important that we offer our customers attractive connections and a strong network.

With the MoU and their collaboration, RCG and DHL are sending a clear signal.

Together we are bundling our know-how and network,” explains RCG Board Member Thomas Kargl.

The aim of the cooperation is to expand rail transports on the Eurasian land



bridge through the six countries of China, Kazakhstan, Russia, Ukraine, Slovakia and Austria.

This includes the increase in freight transport capacity and the sustainable establishment of alternative routes to

the existing China-Europe connections.

Customers benefit from RCG’s high-quality network in Europe and its expertise on the Transkazakh Silk Road routes, coupled with DHL Global Forwarding’s international forwarding services.

“This key partnership comes in the wake of Austria’s Economy Minister having signed 30 business deals worth USD1.9 billion with Chinese companies last month.

The MOU combines RCG’s deep expertise in regional rail infrastructure with DHL’s end-to-end forwarding capabilities and one of the world’s broadest multimodal networks, giving customers in Europe and China a potent new alternative to tap into the opportunities heralded by the Belt and Road,” explains Steve Huang.

*Thriving economic centre Chengdu*

It is no coincidence that the Chinese province is the starting point for future transport operations.

With an intended increase of one trillion yuan by 2022, especially in the biomedical, automotive, intelligent manufacturing and e-commerce sectors, the region has immense potential for high-end exports between China and Austria.

“The Chinese market is particularly attractive for us and Vienna is an important hub for transport operations to and from China.

Starting from the Vienna South Freight Centre, the goods are distributed throughout Europe - between the North Sea, the Mediterranean and the Black Sea. In return, we offer customers from European industry a direct line to Asia with our shuttle services,” says Kargl.

#### *Rail Cargo Group: Freight traffic of the ÖBB*

The Rail Cargo Group is one of the leading rail logistics companies in Europe with annual sales of 2.2 billion euros and 8,700 employees.

Together with strong partners, the Rail Cargo Group offers a comprehensive network of door-to-door-logistics in Europe and far beyond to Asia.

It connects European conurbations and ports with prosperous economic centers in Russia, Turkey and all the way to China. The Rail Cargo Group's lead operating company is Rail Cargo Austria AG.

#### *ÖBB: Austria's largest mobility service provider*

As a comprehensive mobility service provider, the ÖBB Group brings 459 million passengers and 115 million tons of goods to the destination in an environmentally friendly manner every year.

92 percent of traction power comes from renewable energy sources, 90 percent from hydropower.

In 2017, ÖBB was one of the most punctual railways in Europe with around 96 percent punctuality.

Throughout the Group, 41,107 train and bus employees (plus around 1,900 apprentices) ensure that around 1.3 million passengers reach their destinations every day.

The Group's strategic lead company is ÖBB-Holding AG.

*(from: [railjournal.com/railcargo.com](http://railjournal.com/railcargo.com), May 16<sup>th</sup> 2018)*

## LOGISTICS

### PANALPINA JOINS BLOCKCHAIN IN TRANSPORT ALLIANCE

Global freight forwarding and logistics group Panalpina has joined the Blockchain in Transport Alliance (BiTA), a forum of leading tech and transport companies pushing for the development and implementation of blockchain standards in the freight and logistics sector.

The company said it saw many advantages of blockchain technology for freight forwarding and logistics operations in general, but also for specific areas such as perishables in particular.

It said its addition to the alliance brings “over a century of experience in the freight forwarding business into the development of blockchain technology, which has the potential to disrupt the sector”.

BiTA is a forum of leading tech and transportation companies for the development and implementation of blockchain standards.



Members aim to educate the market on blockchain applications and encourage their use through implementation.

Blockchain creates a digital record of every transaction made in a decentralised and secure way using cryptography.

BiTA standards will address how the technology will impact contracts, freight payments, asset maintenance and ownership history, chain of custody of freight, and other issues facing the industry.

Blockchain use in freight forwarding and logistics is still in the early adoption phase, but Panalpina said it was already being approached by vendors, partners and customers inquiring about it.

“It is likely that many blockchain clusters will emerge, for example centred around ports and customs authorities, carrier groupings, as well as third-party



logistics providers and regional logistics networks,” said Ralf Morawietz, chief information officer at Panalpina.

“When it comes to using blockchain applications and managing and interacting with all these different clusters, we have chosen a twofold approach that will be coordinated by a new digital innovation unit.”

Luca Graf, Panalpina’s head of digital innovation, said: “On the one hand, we will look at ways to integrate blockchain technology in complex core systems in the long-run.

Here the focus is clearly on reliability, standardization and partnerships with bigger, established companies.

We will also take part in the wider industry discussion in this context.

On the other hand, we will run pilots and trials using blockchain, likely together with start-ups.

The focus here lies on exploration and specific market and customer needs.”

BiTA president Chris Burruss commented: “Our goal is to bring together leading companies in the freight and technology industries that have a vested interest in the development of blockchain technology.

As an asset-light company with a very long history in the freight forwarding and logistics industry, Panalpina’s contribution will be very valuable.”

Panalpina said it saw many advantages of blockchain technology for freight forwarding and logistics operations.

One advantage is the better tracking of orders and assets.

“Because of the decentralized nature of a blockchain, no single entity is in control of the tracking process, which will increase transparency in the supply chain and ultimately improve consumer trust,” the company said.

“In the area of perishables, for example, blockchain technology can be used to reliably track products from farms to grocery stores, which allows for very precise and quick reports or recalls.”

Other benefits range from better scalability of operations to optimized capacity monitoring and pricing, fewer errors in payment processing and auditing, improved compliance, easier identification of attempted fraud, theft prevention, ease of building trust and gaining real-time feedback from customers, it said.

*(from: lloydsloadinglist.com, May 22<sup>nd</sup> 2018)*

## LAW & REGULATION

### DEADLINE FOR AMENDMENTS TO COMBINED TRANSPORT DIRECTIVE

The deadline for suggesting amendments to the Combined Transport Directive was yesterday, 16 May.

The European Parliament's Transport and Tourism Committee Rapporteur, Daniela Aiuto, has delivered her report to the European Commission with at least 27 amendments.

Policymakers, industry leaders and stakeholders discussed the piece of legislation during the Multimodal Year 2018 – The Future Of Transport event, held in Brussel on the same day.

The Combined Transport Directive (92/106/EEC) is an EU instrument that aims



to reduce the negative side-effects of goods transport on the environment and on society by supporting the shift from long distance road transport to long distance rail, inland waterways and maritime transport through economic incentives.

However, stemming from 1992 without any prior amendment, the legislative piece is outdated and unlikely to realise the objected modal shift.

The European Commission has proposed amendments to the Directive and carried out several consultation exercises over the last four years.

The Parliament delivered its feedback yesterday.

#### *Extended scope of support*

“With our proposal, we want to modernise the Directive and see how we can extend the scope of support for combined transport.

If you look at the overall share of intermodal transport covered by the directive today, about forty per cent can benefit from the measures, either regulatory or economically.

We want to increase this share by seventy per cent”, said Gzim Ocakoglu, Deputy Head of Unit European Commission.

With this objective in mind, the commission has proposed to extend the scope of the definition of road transport, he explained.

“While the current legislation focuses merely on international transport, we have now included national transport as well.”

Another amendment is the increased length of the road leg to 150 kilometres as the crow flies.

In case of rail-road combined transport, the road leg is limited to transport to the nearest suitable rail loading and unloading station.

The maximum distance of the road leg will be increased to 150 kilometres with a twenty per cent flexibility.

#### *150km road leg*

“The Parliament supports the extension of the road leg to 150 kilometres”, revealed rapporteur Aiuto.

The extension serves specific shippers needs, such as in countries like Sweden, where long distances are unavoidable.

There is however much to be debated about the flexibility permitted.

Flexibility could either be based on certain criteria set by the Directive, or be left to the individual Member States, she explained.

In general, authorisation of the respective states is considered to be step back, towards more regulation in a sector that benefits from interoperability.

The International Union for Road-Rail Combined Transport proposed the possibility to “exceed the maximum allowed road leg distance on either end of a combined transport operation based on the prerogative and justification of the operator of the transport in order to continue with existing combined transport operations that require a longer road distance for deficiencies of the rail infrastructure or the existence of freight terminals”, in another amendment.

#### *Infrastructure investment*

Apart from widening the scope of support, more investment is needed in infrastructure, most importantly in building more multimodal terminals to support combined transport operations, said Ocakoglu.

“In Central Europe, where there is a lot of combined transport, there are enough terminals but there is a shortage of capacity.

We propose more investment in this field.”

But also this measure leaves room for debate, as a one-size-fits-all solution is not desirable, pointed out Anders Windfeldt Jensen, Transport Attaché from Denmark.

“There are different levels of development and transport systems in the individual Member States.”

Aiuto added: “Terminal-building should be incentivised, but not enforced.”

Ocakoglu ensured that the focus is on the right terminals, with the necessary capacity to provide services for different transport modes, rather than a lot of terminals in a given area.

*(from: railjournal.com, May 17<sup>th</sup> 2018)*

## PROGRESS & TECHNOLOGY

### AUTONOMOUS YARA BIRKELAND SHIP PROJECT CHOOSES KALMAR

The world's first autonomous and electric container vessel, Yara Birkeland, will use a fully digitalized container handling system from Kalmar to complete the Kongsberg project.

Kalmar has announced that it will deliver the fully autonomous equipment, software and services for to Yara's Porsgrunn facility in Norway during the second quarter of 2020.

Tove Andersen, EVP Production, Yara, said: "With this agreement, Yara Birkeland is not just the world's first electric and autonomous container vessel; it is the world's first fully digitalised and electric supply chain, with all operations, including loading, unloading and sailing conducted in a fully autonomous manner with zero emissions.

Kalmar has the proven equipment and software, and the know-how to integrate their solutions into our supply chain."

Yara, a world-leading mineral fertilizer company that helps feed more than 300 million people worldwide, last year announced a partnership with technology company Kongsberg to build the world's first fully autonomous, battery operated container vessel.



Yara Birkeland will reduce emissions and improve road safety by removing up to 40,000 truck journeys annually in a densely populated area of Norway.

The vessel will transport fertilizer from Yara's Porsgrunn plant via inland waterways to the deep-sea ports of Larvik and Brevik, a journey of 31 nautical miles.



Kalmar will provide the autonomous loading and unloading solution for Yara Birkeland, as well as transportation between the fertilizer production facilities and the quay.

The Kalmar solution consists of one Kalmar Automated Rail Mounted Gantry Crane (AutoRMG), three Kalmar FastCharge AutoStrads, a FastCharge charging station and related automation and safety systems.

A recent video by Kalmar has revealed how it will evolve its entire range of machines into highly advanced electric versions by 2021:

<https://www.youtube.com/watch?v=Ekl0XT3y6rM>

Kalmar will implement the system in phases, with the level of automation gradually increased over time.

The result will be a fully autonomous, mixed-traffic and zero-emission solution in an industrial environment.

Kalmar will also support Yara's operations with a full-scale service contract.

The Kalmar Care contract includes full maintenance with parts for Kalmar FastCharge AutoStrads including an availability agreement as well as preventive maintenance for the Kalmar AutoRMG crane.

Read Kalmar's latest Port Technology technical paper on how to automate an existing RTG terminal:

[https://www.porttechnology.org/technical\\_papers/terminal\\_automation\\_converting\\_to\\_auto\\_rtg#kalmar\\_global](https://www.porttechnology.org/technical_papers/terminal_automation_converting_to_auto_rtg#kalmar_global)

Furthermore, Kalmar personnel will provide operational, automation and software support for the whole solution.

Tero Kokko, Senior Vice President, Automation and Projects, Kalmar, commented: "We are very excited to work with Yara on this unique groundbreaking project.

The project involves several firsts for us, including the first fully automated RMG for vessel loading, unloading and container storage management.

Furthermore, the Kalmar FastCharge AutoStrads will drive along the public roads in the Porsgrunn industrial park, which is also used by normal road traffic. We are working closely with local authorities and other parties to ensure the safety of passengers and vehicles at all times."

*(from: porttechnology.org, May 24<sup>th</sup> 2018)*

## STUDIES & RESEARCH

### LAND-SEA INTEGRATION – THE NEW FRONTIER OF SHIPPING

Our (Drewry) last briefing described the opportunities and challenges of Port Community Systems (PCS) in the digital transformation of ocean shipping.

PCS should be active in pivoting the maritime industry towards inland operations as we have witnessed more strategic initiatives recently.

But they face a number of challenges in relation to inland container management, complex technology model and the variety of stakeholders.

*Ocean carriers and ports are investing in inland services*

Ocean carriers have announced their plans.

Maersk's strategy is to become the global integrator of container logistics, building an end to end integrated logistics solution connecting the entire supply chain through a one stop shop.



While French carrier CMA CGM is moving in the same direction with its recently announced stake in CEVA Logistics and its multi-temperature logistics facility at DP World's London Gateway.

And large ports such as Rotterdam with their 2.6 million TEUs moving inland annually are enhancing their intermodal operations by investing in container shuttle train operator PortShuttle and Nextlogic electronic platform.

Cargo owners are at the centre of these initiatives as demonstrated by the "Peel Off" program at the Port of Los Angeles which increases shipment velocity for high-volume shippers.

Integration of land with sea operations is more than a simple service enhancement of traditional maritime service providers.

It provides new service options and additional value for BCOs as well as broader economic and environmental gains.

### *Critical gains for the industry*

The inland leg of the container shipping supply chain is under pressure to achieve rapid efficiency gains.

The evolution of carrier alliances and larger vessels has made the integration of inland and port operations a key efficiency factor with the risk of increasing congestion if smart planning and shipment release systems are not in place.

In particular, the once moribund practice of vehicle booking systems (VBS) has seen quite a renaissance of late, supported by cloud and mobile app technologies.

Already the port of Manila has reported a 50% rise in productivity thanks to implementation of a VBS.

Economies of scale have slashed costs, but empty container repositioning operations remain unlocked with 33% of containers on the road carried empty.

Increasing compliance requirements, whether for security or environmental purposes, require more data to be passed and checked on the land side.

Cargo owners understand the efficiency gain opportunity for more information and better control of Detention & Demurrage.

Their expectations for more land-sea integrated services open opportunities to technology driven operators.

### *So which technology is likely to change inland container logistics?*

Technology initiatives are addressing specific problems such as terminal or depot gate appointments management, real time asset tracking and scheduling systems, container reuse and electronic documentation.

For instances, technology companies such as Matchback Systems or Avantida are engaging the street turn and triangulation challenge, in North America and Europe.

Boston Consulting Group's (BCG) container Xchange addresses the repositioning cost burden through its container interchange marketplace.

Australia based 1-Stop.biz and Containerchain.com are actively implementing vehicle booking systems, which connect depots, terminals and truckers through mobile apps in various Asia Pacific ports.

The objectives are better synchronisation of yard movements with truckers, less manual processing and more analytics.

Elane's container drayage marketplace Tuochebao.com claims 80% market share in China thanks to a complete service including truckers' invoice generation and payment.

These container trucking apps tend to be regionally focused, such as "matchbox.bid" in Africa.

The trend is well supported by carriers with Maersk's development of its "spotlanes.com" portal covering certain locations and CMA CGM's investment in the collaborative port haulage platform e-Dray.

### *Standalone applications are not enough*

Inland container logistics needs scalability, data and process re-engineering to rapidly reach the expected gains brought about by predictive analytics, planning and marketplace processes.

It requires market wide adoption and alignment of players' operational systems through an acceptance of a minimum set of standard practices.

It can be tricky as it may need public and multiple private stakeholders to collaborate.

Moreover, there is structural complexity attached to each region such as chassis management in North America.

Carriers may still struggle with forecasting their empty container positioning needs.

Beyond technology, challenges can simply be in the behavioural practice of moving to more standardised processes.

Such a systemic and integrated approach is likely to succeed through the initiatives of large operators or authorities seeking safer and greener inland container logistics.

Their support in encouraging inland container start-ups should drive some of the coming changes.

*(from: hellenicshippingnews.com, May 18<sup>th</sup> 2018)*

## INFORMATION TECHNOLOGY

### **DNV GL: THE SEVEN PHASES OF A CYBER ATTACK**

#### *Changes in the cyber security industry*

A recent set of attacks against critical infrastructure entities, such as oil and gas pipeline operators, utilities and even some city and state governments reveal new motives and methods.

The attackers were not out to steal data but were looking to disrupt services.

The attackers used a new attack vector that has not been seen before.

Instead of attacking their primary targets directly, they attacked less secure vendors that those targets use.

We will be looking at how they did this and then how it can be prevented.

#### *Step one – Reconnaissance*

Before launching an attack, hackers first identify a vulnerable target and explore the best ways to exploit it.

The initial target can be anyone in an organization.

The attackers simply need a single point of entrance to get started.

Targeted phishing emails are common in this step, as an effective method of distributing malware.

The whole point of this phase is getting to know the target.

The questions that hackers are answering at this stage are:

1. Who are the important people in the company?

This can be answered by looking at the company web site or LinkedIn.

2. Who do they do business with?

For this they may be able to use social engineering, by make a few "sales calls" to the company.

The other way is good old-fashioned dumpster diving.

### 3. What public data is available about the company?

Hackers collect IP address information and run scans to determine what hardware and software they are using.

They check the ICAAN web registry database.

The more time hackers spend gaining information about the people and systems at the company, the more successful the hacking attempt will be.

#### *Step two – Weaponization*

In this phase, the hacker uses the information that they gathered in the previous phase to create the things they will need to get into the network.



This could be creating believable Spear Phishing e-mails.

These would look like e-mails that they could potentially receive from a known vendor or other business contact.

The next is creating Watering Holes, or fake web pages.

These web pages will look identical to a vendor's web page or even a bank's web page.

But the sole purpose is to capture your user name and password, or to offer you a free download of a document or something else of interest.

The final thing the attacker will do in this stage is to collect the tools that they plan to use once they gain access to the network so that they can successfully exploit any vulnerabilities that they find.

#### *Step three – Delivery*

Now the attack starts.

Phishing e-mails are sent, Watering Hole web pages are posted to the Internet and the attacker waits for all the data they need to start rolling in.

If the Phishing e-mail contains a weaponized attachment, then the attacker waits for someone to open the attachment and for the malware to call home.

#### *Step four – Exploitation*

Now the 'fun' begins for the hacker.

As user names and passwords arrive, the hacker tries them against web-based e-mail systems or VPN connections to the company network.

If malware-laced attachments were sent, then the attacker remotely accesses the infected computers.

The attacker explores the network and gains a better idea of the traffic flow on the network, what systems are connected to the network and how they can be exploited.

#### *Step five – Installation*

In this phase the attacker makes sure that they continue to have access to the network.

They will install a persistent backdoor, create Admin accounts on the network, disable firewall rules and perhaps even activate remote desktop access on servers and other systems on the network.

The intent at this point is to make sure that the attacker can stay in the system as long as they need to.

#### *Step six – Command and control*

Now they have access to the network, administrator accounts, all the needed tools are in place.

They now have unfettered access to the entire network.

They can look at anything, impersonate any user on the network, and even send e-mails from the CEO to all employees.

At this point they are in control.

They can lock you out of your entire network if they want to.

#### *Step seven – Action on objective*

Now that they have total control, they can achieve their objectives.



This could be stealing information on employees, customers, product designs, etc. or they can start messing with the operations of the company.

Remember, not all hackers are after monetizable data, some are out to just mess things up.

If you take online orders, they could shut down your order-taking system or delete orders from the system.

They could even create orders and have them shipped to your customers.

If you have an Industrial Control System and they gain access to it, they could shut down equipment, enter new set points, and disable alarms.

Not all hackers want to steal your money, sell your information or post your incriminating e-mails on WikiLeaks, some hackers just want to cause you pain.

*Prepare for the attack*

So, what now?

What can you do to protect your network, your company, even your reputation?

You need to prepare for the attack.

Let's face it, sooner or later the hackers will come for you.

Don't let yourself think that you don't have anything that they want.

Trust me, you do.

*(from: hellenicshippingnews.com/dnvgi.com, May 14<sup>th</sup> 2018)*

## ON THE CALENDAR

- 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.