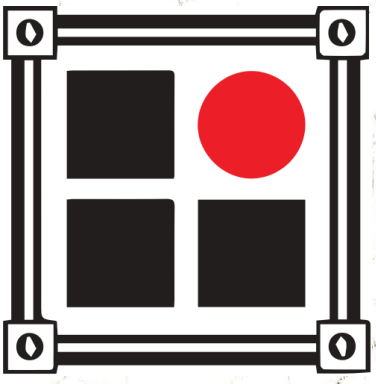

Centro Internazionale Studi Containers

Newsletter

June 30th 2019

Link road, rail, sea!

C.I.S.Co. - Via Garibaldi, 4 – 16124, Genova Tel. 010 2518852 - www.ciscoconsultant.it

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PORTS AND TERMINALS

AUTONOMOUS VEHICLES: IAPH PUBLISHES REPORT ON IMPACT FOR PORTS

With the IMO Maritime Safety Committee (MSC) delivering initial work on a scoping regulatory exercise for autonomous shipping last week in London, IAPH publishes initial report findings on the implications of autonomous vehicles on land, sea and air for ports.

The International Association of Ports and Harbors (IAPH) has published a study conducted by Fraunhofer CML in collaboration with Hamburg Port Authority on the impact of autonomous vehicles (sea, air and land) on port infrastructure needs.

The report analyses in substantial detail the impact of current short, medium and long-term developments in autonomous vehicle technology on ports.

The report recommends the proactive investment in appropriate infrastructure in ports for the short term.

However, it also recognises that rapid advances in vehicle autonomy (especially with Unmanned Surface, Underwater and Aerial Vehicles) is creating uncertainty on specific requirements for ports where road, rail sea and air traffic intersect.

IAPH Managing Director Patrick Verhoeven commented: "The irrevocable advances in autonomous vehicles, especially those in surface ships, mean that ports will have to adapt their systems, processes and land-side berthing infrastructure to safely and efficiently meet their needs.

However, the story does not end there.

Currently, at IAPH member ports, drones are being deployed for security and maintenance.

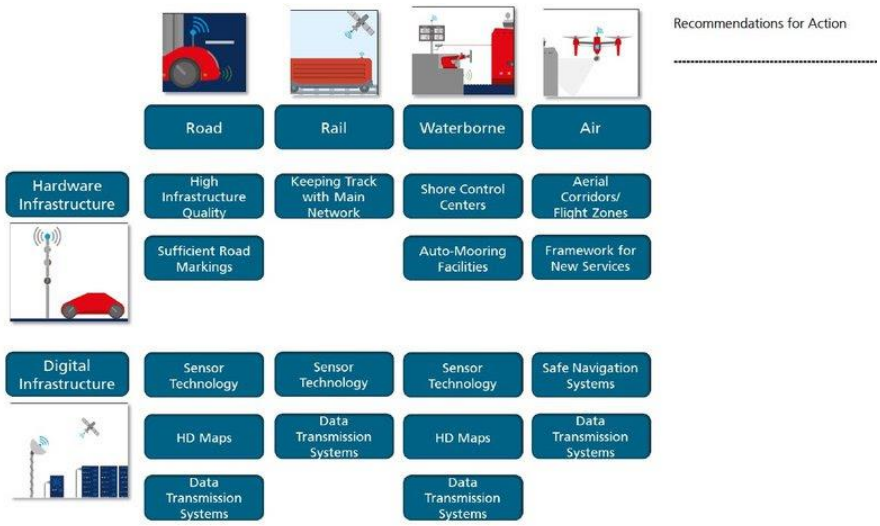
Underwater drones are also being used for vessel inspection and maintenance.

Autonomous vehicles are already in operation within enclosed areas at some of the world's most advanced ports such as Singapore and Rotterdam, with trials planned by rail and road using 5G networks beyond the yard gates.

Our report shows that automation of shipping is just one aspect, ports are confronted with many more elements of automation."

IMO sets out a scoping exercise on use of Maritime Autonomous Surface Ships (MASS)

The 101st session of the Maritime Safety Committee (MSC) is now drafting its final report after sessions held last week at the IMO Headquarters in London.



This includes progress on the regulatory scoping exercise being carried out for the use of maritime autonomous surface ships (MASS).

The Committee has established the MASS Working Group to finalise draft interim guidelines for MASS trials using a web platform with a view to completion in 2020.

The Group will be providing comments on the provisional principles for interim guidelines for MASS trials, as well as proposals for the development of those guidelines, focussing on safe manning, and training and certification of operators responsible for the management or control of a ship.

In the meantime IAPH is reaching out to its member ports to receive parallel input from existing pilots taking place on autonomous vehicles.

This includes the comprehensive plan to trial a Smart Seaport 5G MoNArch (Mobile Network Architecture) network testbed at the Port of Hamburg, which was a World Ports Sustainability Award runner-up in the category Resilient Infrastructure at the recent IAPH World Ports Conference in Guangzhou, China.

Connecting the ship-shore interface in practice

IAPH Managing Director Patrick Verhoeven concluded : "In his closing remarks at the 101st IMO Maritime Safety Committee, Secretary General Kitack Lim welcomed the significant progress with the regulatory scoping exercise for the use of maritime autonomous surface ships, including preparations for the meeting of the Intersessional MASS Working Group in September, and approval of the Interim Guidelines for MASS trials.

IAPH looks forward to adding the port industry's voice to ensure a collaborative ship-shore approach with the IMO to autonomous vehicle deployment on land, sea and air."

(from: hellenicshipping news.com, June 19th 2019)

MARITIME TRANSPORT

US-CHINA TRADE WAR MAY BENEFIT SHIPPING

The escalating US-China trade war may be bad news for the transpacific container trade but should result in higher volumes of intermediate goods as supply chains become more fragmented with the diversion of manufacturing to other markets, according to analyst Drewry.

In an adapted extract from Drewry's forthcoming Container Forecaster report, the company noted that when it comes to trade, any dispute between two countries, particularly when it is between the world's two largest economies, has far wider ripple effects.

Numerous countries and industries are involved at some stage of the supply chain to make sure the finished product ends up in a store in New York, even if customs only logs the last point of origin, Drewry highlighted.

"The fragmentation of production that really took off this century, thanks to advances in technology and China's ascension, has been a massive boost to container shipping.

The movement of intermediate items necessary to the make the final product account for over half of world trade in goods, according to the OECD," Drewry pointed out.

"More fragmentation means more need for transportation services and vice versa."

Potential losers in this trade war will be those countries that provide the raw materials and semi-finished goods to China that go into the re-export of the final products to the US, Drewry noted, with the US itself potentially suffering because China uses up some US exports for re-exports.

But Drewry added: "The thing is that China has developed its manufacturing capacity to such an extent that it barely needs inputs from the rest of the world to support its exports, which should limit the collateral damage."

It continued: "Using data from the UNCTAD-Eora database that measure trade in value added to better apportion individual countries' contribution to trade - something that gets lost in bilateral trade statistics - China's share of foreign value added in gross exports (the amount of value added upstream in the supply

chain previously by other countries) has been shrinking since the start of this decade from 19% in 2010 to 13% as of last year.

Germany, the world's largest exporter in gross value-added terms, requires far more inputs from abroad to support its highly fragmented car industry, with a foreign value-added ratio of 36%."

Drewry said China's "hogging of production" was partly responsible for the slowdown in world trade witnessed in the past few years, "and its ever-growing self-sufficiency makes us less fearful of the spill-over effects from the trade war on global container flows.

This should be a fairly isolated affair with the transpacific bearing the brunt, compensated to some degree by trade diversion."

Assuming this week's G20 summit in Japan doesn't suddenly reverse the situation and the US goes ahead with plans to subject all Chinese imports to extra duties, the new protectionist world "could bring some benefits to container shipping lines", Drewry said, adding: "As final goods sourcing moves to countries currently without the same manufacturing eco-system as China, they will require more intermediate inputs, meaning more production fragmentation.

Where those links establish themselves will determine how beneficial the process is for shipping lines.

More intra-Asia trade will boost demand for shipping services and put a greater onus on smaller feeder ships, whereas greater regional trade in North America and Europe would be less advantageous due to overland opportunities."

But Drewry said this was by no means the end of China's export dominance, at least not in the short-term.

"While we do foresee some erosion of its market share in outbound container flows to the US, the sheer size of its export machine means that it cannot be replaced overnight," it added.

"China was responsible for around one-third of all US finished goods imports last year, when measured in bilateral trade, twice as much as the rest of East Asia combined."

Even the trade diversion from China to other countries that is already visible in customs statistics is "possibly a false flag for China's supposed demise", Drewry noted, adding: "Bilateral data shows that Vietnam is one of the fastest-growing exporters to the US, but the country's government recently announced that it is cracking down on Chinese goods being relabelled with 'Made in Vietnam' tags.

The rise in Chinese exports of intermediate goods to South East Asia does give credence to the allegations of tariff gaming.

If true, this illegal practice offers shipping lines some welcome illicit extra business, but it does not suggest that places like Vietnam are anywhere close to being a ready-made export destination replacement."

Drewry concluded: "There will be some short-term disruption to the container market as new trading links are developed, but further fragmentation of production will boost the need for shipping, assuming demand levels are sustained.

For the foreseeable future, China will remain the world's container export hub, albeit a slightly smaller one."

(from: lloydsloadinglist.com, June 25th 2019)

RAIL TRANSPORT

HEADS OF EU INFRASTRUCTURE DISCUSS RAIL FREIGHT FUTURE

On 13 June in Bern, chief executives from rail infrastructure companies discussed measures for improving the operational environment of railway undertakings, with a special focus on increasing the rail freight modal share to 30% by 2030.

Jointly organised by the Community of European Railways and Infrastructure Companies (CER) and the association of European Rail Infrastructure Managers (EIM), the annual meetings between the heads of rail infrastructure companies provide a platform for exchanging information and experiences between rail infrastructure companies, with a view to finding common solutions to support rail traffic in Europe.

The CEOs of rail infrastructure companies discussed Smart Language Solution, including artificial intelligence, for an efficient and safe communication between the train drivers and the signallers in border-crossing and multi-lingual settings.

These pragmatic solutions aim at improving communication and interoperability, as well as reducing costs for railway undertakings, while respecting current EU language requirements.

CER
The Voice of European Railways

The meeting also provided the opportunity to discuss with rail freight operators on the processes and roles for an effective international coordination in the case of international disruptions.

To be successful, the overviews of re-routing lines along the European Rail Freight Corridors was identified as being of key importance.

Infrastructure managers discussed the importance of harmonising operational processes in order to improve interoperability, and called upon governments to invest in upgrading parameters of re-routings lines.

CEOs of rail freight companies representing the Rail Freight Forward coalition and infrastructure managers, together with representatives from transport ministries, jointly discussed the measures needed to transform rail freight into

a high-performing, efficient and sustainable backbone transport system in order to shift more goods to rail.

Infrastructure managers pledged their support by intensifying their efforts to enable easier access to infrastructure, improving planning and reliability of train paths, and simplifying train operations with dynamic traffic management, with the ultimately goal of creating a standardised high-capacity infrastructure for rail freight.

CER Executive Director Libor Lochman said: "Today's discussion focused on finding pragmatic solutions to improving the operating environment for railway operators.

It showed that to be successful, we need to intensify our effort and our cooperation between infrastructure managers, railway undertakings, as well as national and European authorities."

EIM Executive Director Monika Heiming said: "The role of rail infrastructure managers in providing the solution for today's and tomorrow's mobility issues have been underlined once again.

Rail infrastructure managers have intensified their cooperation in various platforms and continue to do so.

Best practice in the market need to be addressed on European level."

(from: railfreight.com/cer.be, June 17th 2019)

INTERMODAL TRANSPORT

SHARP DECLINE IN UK-EU TRUCK TRAFFIC

Eurotunnel today reported a sharp decline in UK-EU truck traffic in May, blaming it on Brexit-related "destocking" following the stock building in the first three months of the year in preparation for the original UK departure date from EU, although total road freight traffic for the first five months declined by 2%.

The Channel Tunnel operator said continuing political uncertainty in the UK and the delay to Brexit "seems to be affecting economic activity, as shown by macroeconomic indicators and a contraction in industrial production".

Truck traffic carried in May by Eurotunnel's Le Shuttle Freight operations were down 11% compared to May 2018, "following destocking by British businesses in April and May, following stock building in the first three months of the year in preparation for the original departure date from the EU on 29 March", the company noted.

"However, after a sharp decline in car production in Britain in April, the recovery of traffic flows related to this industry is progressively improving.

Since the beginning of 2019, nearly 690,000 trucks have crossed the Channel on Le Shuttle Freight services, a 2% decrease on last year."

(from: lloydsloadinglist.com, June 12th 2019)

TRANSPORT & ENVIRONMENT

TRANSPORT DECARBONISATION TARGETS WILL BE REVISED IF NEEDED, EU OFFICIAL SAYS

Although the new renewable energy directive (REDII) set compromise minimum targets helping to decarbonise the transport sector, the EU executive reserves the right to take action on the matter again if necessary, a Commission official has said.

On Wednesday (12 June), the Green Energy Platform led by the think tank Farm Europe organised a workshop in Brussels to present the results of the '2030 Transport Decarbonisation Options' study, conducted by the consultancy firm Navigant.

The final versions of the Integrated National Climate and Energy Plans (NECPs) that the member states have to present to the Commission are expected in the next months under the Effort Sharing Regulations.

According to the report, the NECPs should also be regarded as a good chance to underline new policy initiatives and present different solutions to address the decarbonisation of transport, as REDII targets alone are not considered enough to reduce the fossil dominance in the transport sector.

"REDII is not very ambitious with respect to [decarbonisation] targets.

And it's no secret that the Commission's original proposal was more ambitious also on biofuels," said Bernd Kuepker at the Commission's DG ENER.

On the other hand, he pointed out that the compromise reached in the REDII set a very robust framework, taking into account many methodologies and approaches to addressing different issues, such as the definition of the low or high risks of indirect land use change (iLUC risk factors).

"It might seem not huge but we set a minimum target and now member states can go beyond that in order to achieve other objectives," Kuepker added.

Since the Commission was forced to lower its ambition during the interinstitutional negotiations, EURACTIV asked if it has also considered a sort of a back-up plan with the possibility of taking corrective actions in case the Commission experts realise that the EU would be failing on the broader goal of decarbonisation.

The EU official answered that some midterm reviews have been included in the text of the directive before 2023, as well as a general review.

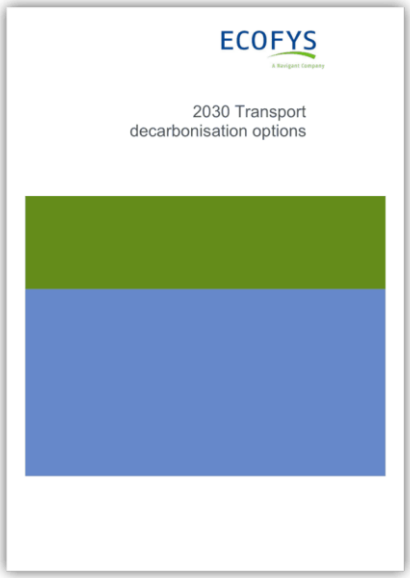
"We will see.

It's just speculation, but I'm sure that, as the Commission has the right of initiative, it will act if it considers necessary to do so," he said.

Carbon abatement costs

The study presented at the workshop was conducted in nine Central and Eastern European member states and represents an attempt to assess the carbon abatement cost of different technological solutions available to curb greenhouse gas emissions.

The challenge of reducing carbon emissions in road transport is essential for the long-term decarbonisation goals in 2050.



"If transport does not achieve its target, other sectors will be asked for more," said Carlo Hamelinck, associate director of Navigant.

According to Navigant's report, all options are needed in combination to achieve overall GHG emission savings.

In particular, electrification of mobility and biofuels are both considered essential in order to make the reduction in carbon emissions as cost-effective as possible.

For their modelling, the authors of the study used the estimates for commodity prices that have been provided by the nine member states for their NECPs development.

The study forecasts a fall in the carbon abatement cost by 2030 both for electric cars – from current €800/tonne CO2 equivalent to roughly €200/tonne – and for biofuels, from €200/tonne to €20/tonne.

"We assumed that the increase in biofuels must be low iLUC," stressed Hamelinck.

The United Nations Intergovernmental Panel on Climate Change (IPCC) has also highlighted the need to push forward both electromobility and biofuels.

Speaking on the sidelines of the COP24 in Katowice in Poland, IPCC's Dr Diana Urge-Vorsatz told EURACTIV.com that switching to electric cars is just one option and there are a number of others, such as biofuels, that should not be discarded.

"There is no doubt that we will have to consider all mobility-related options […]

These do include electromobility, biofuels, shared mobility and several different mobility services in general," she said.

Speaking at the same conference, Zoltán Szabó, a sustainability consultant in the bioenergy industry, said the EU was facing another lost decade in transport decarbonisation.

"Research shows that far-reaching deployment of both electrification and European sustainable biofuels are essential for member states to achieve their NECP targets in transport.

There has been little discussion on the cost to governments, consumers and society of carbon abatement costs in transport," he said.

He added that the European-produced ethanol has been proven to deliver GHG emission reductions at the lowest cost of all available options.

"The Effort Sharing Regulation allows member states the scope to formulate appropriate policies to increase the use of ethanol.

CEE countries also have the potential for trading over-compliance from EU countries with good agricultural potential.

NEPCs will need to be cost-effective if we are to respect sound economic management on climate change mitigation," Szabó said.

The International Energy Agency (IEA) has said in a report that bioenergy is the "overlooked giant" in the renewable energy puzzle and projected that it will represent the largest source of growth in renewable consumption over the period 2018-2023.

"Ethanol is very important because it is part of the solution in terms of reducing the oil import dependence of many countries," IEA's executive director Fatih Birol recently told EURACTIV, adding that ethanol will help reduce CO2 emissions from the transport sector as well as other sectors.

(from: euractiv.com, June 17th 2019)

INDUSTRY

THE FUTURE OF HYDROGEN - SEIZING TODAY'S OPPORTUNITIES

The time is right to tap into hydrogen's potential to play a key role in a clean, secure and affordable energy future.

At the request of the government of Japan under its G20 presidency, the International Energy Agency (IEA) has produced this landmark report to analyse the current state of play for hydrogen and to offer guidance on its future development.

The report finds that clean hydrogen is currently enjoying unprecedented political and business momentum, with the number of policies and projects around the world expanding rapidly.

It concludes that now is the time to scale up technologies and bring down costs to allow hydrogen to become widely used.

The pragmatic and actionable recommendations to governments and industry that are provided will make it possible to take full advantage of this increasing momentum.

* * *

Report executive summary

Hydrogen can help tackle various critical energy challenges.

It offers ways to decarbonise a range of sectors – including long-haul transport, chemicals, and iron and steel – where it is proving difficult to meaningfully reduce emissions.

It can also help improve air quality and strengthen energy security.

Despite very ambitious international climate goals, global energy-related CO2 emissions reached an all time high in 2018.

Outdoor air pollution also remains a pressing problem, with around 3 million people dying prematurely each year.

Hydrogen is versatile.

Technologies already available today enable hydrogen to produce, store, move and use energy in different ways.

A wide variety of fuels are able to produce hydrogen, including renewables, nuclear, natural gas, coal and oil.

It can be transported as a gas by pipelines or in liquid form by ships, much like liquefied natural gas (LNG).

It can be transformed into electricity and methane to power homes and feed industry, and into fuels for cars, trucks, ships and planes.

Hydrogen can enable renewables to provide an even greater contribution.

It has the potential to help with variable output from renewables, like solar photovoltaics (PV) and wind, whose availability is not always well matched with demand.

Hydrogen is one of the leading options for storing energy from renewables and looks promising to be a lowest-cost option for storing electricity over days, weeks or even months.

Hydrogen and hydrogenbased fuels can transport energy from renewables over long distances – from regions with abundant solar and wind resources, such as Australia or Latin America, to energy-hungry cities thousands of kilometres away.

There have been false starts for hydrogen in the past; this time could be different.

The recent successes of solar PV, wind, batteries and electric vehicles have shown that policy and technology innovation have the power to build global clean energy industries.

With a global energy sector in flux, the versatility of hydrogen is attracting stronger interest from a diverse group of governments and companies.

Support is coming from governments that both import and export energy as well as renewable electricity suppliers, industrial gas producers, electricity and gas utilities, automakers, oil and gas companies, major engineering firms, and cities.

Investments in hydrogen can help foster new technological and industrial development in economies around the world, creating skilled jobs.

Hydrogen can be used much more widely.

Today, hydrogen is used mostly in oil refining and for the production of fertilisers.

For it to make a significant contribution to clean energy transitions, it also needs to be adopted in sectors where it is almost completely absent at the moment, such as transport, buildings and power generation.

However, clean, widespread use of hydrogen in global energy transitions faces several challenges:

- *Producing hydrogen from low-carbon energy is costly at the moment.*

  IEA analysis finds that the cost of producing hydrogen from renewable electricity could fall 30% by 2030 as a result of declining costs of renewables and the scaling up of hydrogen production.

  Fuel cells, refuelling equipment and electrolysers (which produce hydrogen from electricity and water) can all benefit from mass manufacturing.

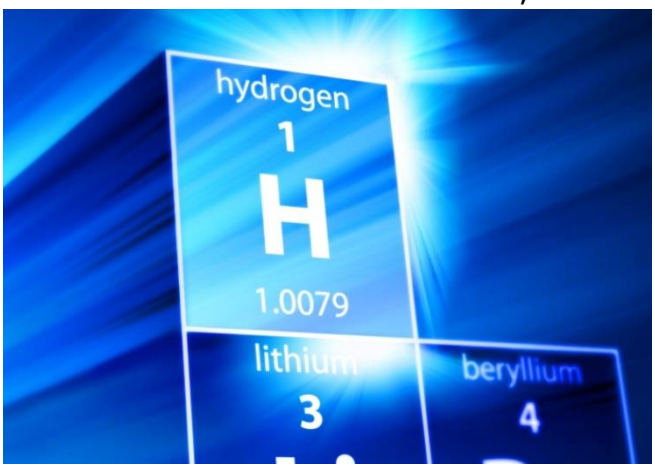
- *The development of hydrogen infrastructure is slow and holding back widespread adoption.*

  Hydrogen prices for consumers are highly dependent on how many refuelling stations there are, how often they are used and how much hydrogen is delivered per day.

  Tackling this is likely to require planning and coordination that brings together national and local governments, industry and investors.

- *Hydrogen is almost entirely supplied from natural gas and coal today.*

  Hydrogen is already with us at industrial scale all around the world, but its production is responsible for annual CO2 emissions equivalent to those of Indonesia and United Kingdom combined.

  Harnessing this existing scale on the way to a clean energy future requires both the capture of CO2 from hydrogen production from fossil fuels and greater supplies of hydrogen from clean electricity.

- *Regulations currently limit the development of a clean hydrogen industry.*

  Government and industry must work together to ensure existing regulations are not an unnecessary barrier to investment.

Trade will benefit from common international standards for the safety of transporting and storing large volumes of hydrogen and for tracing the environmental impacts of different hydrogen supplies.

The IEA has identified four near-term opportunities to boost hydrogen on the path towards its clean, widespread use.

Focusing on these real-world springboards could help hydrogen achieve the necessary scale to bring down costs and reduce risks for governments and the private sector.

While each opportunity has a distinct purpose, all four also mutually reinforce one another.

1. *Make industrial ports the nerve centres for scaling up the use of clean hydrogen.*

   Today, much of the refining and chemicals production that uses hydrogen based on fossil fuels is already concentrated in coastal industrial zones around the world, such as the North Sea in Europe, the Gulf Coast in North America and southeastern China.

   Encouraging these plants to shift to cleaner hydrogen production would drive down overall costs.

   These large sources of hydrogen supply can also fuel ships and trucks serving the ports and power other nearby industrial facilities like steel plants.

2. *Build on existing infrastructure, such as millions of kilometres of natural gas pipelines.*

   Introducing clean hydrogen to replace just 5% of the volume of countries' natural gas supplies would significantly boost demand for hydrogen and drive down costs.

3. *Expand hydrogen in transport through fleets, freight and corridors.*

   Powering highmileage cars, trucks and buses to carry passengers and goods along popular routes can make fuel-cell vehicles more competitive.

4. *Launch the hydrogen trade's first international shipping routes.*

   Lessons from the successful growth of the global LNG market can be leveraged.

   International hydrogen trade needs to start soon if it is to make an impact on the global energy system.

International co-operation is vital to accelerate the growth of versatile, clean hydrogen around the world.

If governments work to scale up hydrogen in a co-ordinated way, it can help to spur investments in factories and infrastructure that will bring down costs and enable the sharing of knowledge and best practices.

Trade in hydrogen will benefit from common international standards.

As the global energy organisation that covers all fuels and all technologies, the IEA will continue to provide rigorous analysis and policy advice to support international co-operation and to conduct effective tracking of progress in the years ahead.

As a roadmap for the future, we are offering seven key recommendations to help governments, companies and others to seize this chance to enable clean hydrogen to fulfil its long-term potential.

The IEA's 7 key recommendations to scale up hydrogen

1. *Establish a role for hydrogen in long-term energy strategies.*

   National, regional and city governments can guide future expectations.

   Companies should also have clear long-term goals.

   Key sectors include refining, chemicals, iron and steel, freight and long-distance transport, buildings, and power generation and storage.

2. *Stimulate commercial demand for clean hydrogen.*

   Clean hydrogen technologies are available but costs remain challenging.

   Policies that create sustainable markets for clean hydrogen, especially to reduce emissions from fossil fuel-based hydrogen, are needed to underpin investments by suppliers, distributors and users.

   By scaling up supply chains, these investments can drive cost reductions, whether from low-carbon electricity or fossil fuels with carbon capture, utilisation and storage.

3. *Address investment risks of first-movers.*

   New applications for hydrogen, as well as clean hydrogen supply and infrastructure projects, stand at the riskiest point of the deployment curve.

Targeted and time-limited loans, guarantees and other tools can help the private sector to invest, learn and share risks and rewards.

4. *Support R&D to bring down costs.*

   Alongside cost reductions from economies of scale, R&D is crucial to lower costs and improve performance, including for fuel cells, hydrogenbased fuels and electrolysers (the technology that produces hydrogen from water).

   Government actions, including use of public funds, are critical in setting the research agenda, taking risks and attracting private capital for innovation.

5. *Eliminate unnecessary regulatory barriers and harmonise standards.*

   Project developers face hurdles where regulations and permit requirements are unclear, unfit for new purposes, or inconsistent across sectors and countries.

   Sharing knowledge and harmonising standards is key, including for equipment, safety and certifying emissions from different sources.

   Hydrogen's complex supply chains mean governments, companies, communities and civil society need to consult regularly.

6. *Engage internationally and track progress.*

   Enhanced international co-operation is needed across the board but especially on standards, sharing of good practices and crossborder infrastructure.

   Hydrogen production and use need to be monitored and reported on a regular basis to keep track of progress towards long-term goals.

7. *Focus on four key opportunities to further increase momentum over the next decade.*

   By building on current policies, infrastructure and skills, these mutually supportive opportunities can help to scale up infrastructure development, enhance investor confidence and lower costs:

   - Make the most of existing industrial ports to turn them into hubs for lower-cost, lower-carbon hydrogen.

   - Use existing gas infrastructure to spur new clean hydrogen supplies.

   - Support transport fleets, freight and corridors to make fuel-cell vehicles more competitive.

- Establish the first shipping routes to kick-start the international hydrogen trade.

(from: iea.org, June 2019)

LOGISTICS

DHL TOPS GLOBAL 3PL LIST AGAIN

DHL once again topped the rankings of the world's leading third-party logistics providers (3PLs) in gross revenue terms last year, followed by Kuehne + Nagel, DB Schenker, Nippon Express and C.H. Robinson, in what was "an extraordinary year" for US logistics firms, boosted by inventory build-up prior to the China tariffs, according to the latest research by Armstrong & Associates (A&A).

The US-based analyst reported that DHL Supply Chain & Global Forwarding achieved gross logistics revenue of $28.12 billion, while Kuehne + Nagel ($25.32 billion) was in second place followed by DB Schenker ($19.97 billion), Nippon Express ($18.78 billion) and C.H. Robinson ($16.63 billion) in fifth position.

Positions 6-10 were taken, respectively, by DSV, XPO, Sinotrans, UPS Supply Chain Solutions and J.B. Hunt.

DHL Supply Chain & Global Forwarding was also the largest air freight forwarder measured in tonnages terms in 2018, followed by K+N, DB Schenker, Panalpina and Expeditors, while for ocean freight K+N topped the A&A rankings by volume, followed by Sinotrans, DHL, DB Schenker and Panalpina.

Explaining the results in a webinar hosted by Stifel last week, Evan Armstrong, president of A&A, said 2018 was "an extraordinary year" for 3PLs, noting: "We had 15.8% year-over-year gross revenue growth [for dedicated contract carriage] in the (US 3PL) market, a lot of that driven by the inventory build that we had prior to the China tariffs [introduced by the Trump administration through 2018] going in.

We won't see that bump this year, so the year-over-year 'comparables' from 2019 to 2018 are pretty tough.

It will be pretty tough to try to grow at 15.8% again this year."

Last year, US 3PLs also saw a 23% year-on-year increase in domestic transport management revenue and an 11% increase in international transport revenues, helping overall net revenues surge 11.8%.

"For net revenue growth in domestic transportation management as high as 23.2%, I believe you have to go back to 2010, or maybe even beyond, to find better growth, year-over-year, in that segment," said Armstrong.

"The international transportation management grew at 11%.

Air freight tended to be the best driver of that growth.

So everybody was fairly fat and happy in 2018, and it's pretty hard take these numbers into 2019, which we are seeing as we speak."

One potential upside this year could come from the growth of e-commerce.

US 3PL e-commerce revenues reached $12.8 billion in 2017 but increased to an estimated $15.3 last year.

A&A expects 18% CAGR through 2020 to take e-commerce revenues for US 3PLs to $17.9 billion this year and to $20.9 in 2020.

"3PL revenues from e-commerce are still a small percentage of the 3PL market.

However, it is the fastest-growing segment," said Armstrong.

"When you talk to 3PLs, they're much more interested in working with retail brands versus working with platforms.

You've seen what's happened with Amazon in-sourcing different parts of its supply chain from 3PLs.

You have JD and Alibaba, which tend to have lower margins than if you work directly with a retail brand.

So, a lot of 3PLs got that figured out, and there are a lot of retail brands that don't want to work with the platforms and want to maintain their own supply chains.

So there seems to be some pretty good match in what's going on in e-commerce, and what 3PLs are delivering these days."

Illustrating the increased role that platforms such as Amazon were having in 3PL markets, Armstrong highlighted global warehousing capacity in 2018.

DHL had most capacity last year followed closely by Amazon.com – if classed as a 3PL – in second, with XPO Logistics, K+N and Nippon Express taking positions 3-5.

Armstrong said Amazon's rapidly growing warehouse square footage "is quickly approaching the size of what DHL Supply Chain has in warehousing and in container freight stations.

And if you looked at their third-party revenues, they would be the largest 3PL globally.

However, the numbers they report tend to be fairly opaque and we don't consider all of that to be 3PL revenue.

Over half of their business is from marketplace customers and there's a lot going on in terms of third-party logistics at Amazon these days.

As part of that, we've seen an increase in lease rates, we've seen shortages of real estate in some markets, labour within warehouses has gone up, transit time, on-time performance of course has gone up.

So, on time performance and the customer expectation has been ramped up due to the Amazon effect and, of course, Amazon still doesn't have need for profit like most publicly traded third party logistics providers do, so it tends to operate under different rules."

(from: lloydsloadinglist.com, June 12th 2019)

PROGRESS & TECHNOLOGY

BUILDING THE SMART CITY

While the transportation sector's increasingly rapid development has witnessed several ports transform into smart and connected environments, the shift towards connectivity is also taking effect beyond the gate.

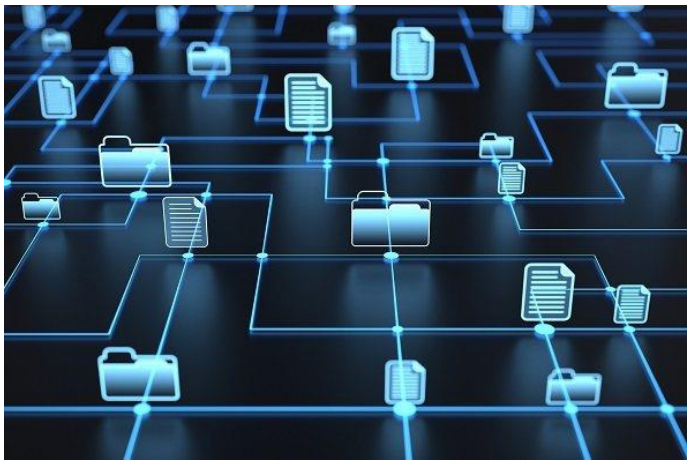
As Benjamin Vernooij and Mary Etienne, Dell EMC, argues, "ports need to look outside" and consider their role in a much larger ecosystem of trade, especially as local and global logistics chains embrace the growing trend of digitization.

A key component of this movement is the rise of the smart city and urbanization as a whole; with 60% of the world's population expected to live in cities by 2050, according to TechRepublic, these environments are leveraging new technologies to become more intelligent and capable of supporting their citizens.

With ports and terminals serving as key economic centers in a large number of major cities worldwide, many of which are already striving to become smarter, the owners and operators of these vital trade hubs need to understand where they fit.

The rise of the smart city

In much the same way as technologies like smart sensors and the Internet of Things (IoT) connect components within a port environment – transferring data from machine to machine to increase visibility and enable more powerful analytics – layers of a city can also be linked by data.



The European Commission has stated that smart cities mean "smarter urban transport networks, upgraded water supply and waste disposal facilities and more efficient ways to light and heat buildings": just a few of the benefits that can be accessed by increasing connectivity.

With the support of IBM, which in 2018 delivered the first blockchain platform as-a-service to be officially endorsed by the UAE, Dubai is one of many locations taking steps to lead this revolution.

"Smart Dubai has been moving rapidly towards our main objective of transforming the emirate into a fully-fledged smart city," claims HE Dr. Aisha Bint Butti Bin Bishr, Director General of the government office which is adopting innovation to make everyday processes and transactions more transparent.

Smart and connected

Before you consider how a port or terminal can become a vital node in the larger system of a smart city, it is important to recognize which solutions are being developed to a support an urban environment that is fast-moving, incredibly busy, but also connected.

Of the key developments that are currently driving this movement, few are more important than the introduction of 5G networks that are not only faster than previous iterations but also more versatile; in the smart city, communication between machines will be just as important as communication between people.

Nokia, which recently presented at the Container Terminal Automation Conference on the subject of 5G networks, is one of the leaders in telecommunications already testing these solutions.

The company has piloted a "smart pole concept" that targets the problem of network capacity, a key obstacle which must be overcome to adequately cover the number of users, services and data interacting within a smart city.

By finding a way to increase data transfer capacity, Nokia has made viable the digital services which will become the bedrock of how this modern environment operates.

Connecting ports

Many ports and terminals, as covered in a recent insight from PTI, are choosing to invest in advanced networks as well, conducting their own trials to determine what new applications and services will become possible with the extra speed and bandwidth offered by 5G.

Although these crucial trade hubs are seeking to become more connected in and of themselves, they will ultimately have a key role to play in the smart city as one of the main enablers of commerce and logistics – locally, regionally, and nationally.

For ports, communicating with the local businesses that support their operations is a fundamental aspect of planning processes and the management of container throughput.

The key then, to cultivating a much stronger and open relationship between these organizations, is data.

The ecosystem of a smart city is built on the principle of collaboration and, including those businesses which function alongside a port, generates information that is accessible where it is most needed.

As this intelligent network develops, it could be that space in a nearby warehouse - which provides extra storage capacity for containers waiting to enter a port - would be visible to the operator in real-time, facilitating a much more comprehensive oversight of capacity requirements.

Enabling logistics

Another key area in which both a port and a smart city will be able to interact each other is connected vehicles; if the former is to plan their operations more efficiently in the future, it is vital that a truck's location and expected time of arrival is visible.

In the smart city, this level of transparency can be achieved through sensor technology and IoT, which tracks the progress of the vehicle and even the goods it is carrying to make supply chains smoother and more adaptable, especially in the case of exceptions or delays.

The development of vehicle-to-vehicle (V2V) communications, enabling autonomous driving even in congested environments, could also represent a massive boost to tomorrow's supply chain, reducing traffic, eliminating potential incidents and allowing cargo to move in and out of a port quickly.

More significantly, this is where the smart digital port of the future can start to look beyond the gate and think more carefully about its role in a much larger chain of cooperating parties, all of whom can come together and share data to make their processes more efficient.

As asserted by Yossi Sheffi, professor and supply chain expert at MIT, the "challenge is to develop what the customers are clamoring for – end-to-end, reliable and consistent shipping at a reasonably low cost".

Smarter ports and cities will only help to achieve this goal.

(from: porttechnology.org, June 7th 2019)

STUDIES & RESEARCH

NEW TRADE ROUTES SET TO HELP MEET LONG-TERM FREIGHT TRANSPORT DEMAND

The development of new trade routes will help meet predicted freight transport demand growth in the decades ahead, according to a major new report.

As reported in Lloyd's Loading List last month, ITF Transport Outlook 2019 - produced for the OECD by the International Transport Forum (ITF), an intergovernmental think tank, predicts global freight demand will triple between 2015 and 2050, based on current demand growth rates.

ITF argues that new shipping, barge and rail routes will help meet such demand growth, transforming trade flows and logistics strategies in the process.

"These shifts could result from new and improved freight networks in Eurasia and Africa and from new maritime routes opening up in Arctic waters," it said.

"Using the Northern Sea Route for maritime freight between Northern Europe and Japan could reduce voyage distances by 37% relative to routing through the Suez Canal," it added.

"The distance from Northern European ports to Korea would be reduced by 31%, to China by 23% and to Chinese Taipei (Taiwan) by 17%.

Regular use of the North-West Passage could reduce voyage distance between North America and large ports located in Northeast Asia by up to 20%.

New canals could also provide alternative maritime routes that would shorten existing trade routes."

The report said plans to construct the Kra Canal across the Malayan peninsula would cut the distance for oil and other shipments from the Middle East to China and Japan by 1,200 km, the equivalent of two to three days vessel transit time via the Strait of Malacca.

Equally, the proposed Nicaragua Canal across the Central American isthmus could theoretically provide an alternative to the Panama Canal that would be better able to accommodate the biggest ships.

Modernising infrastructure and improving the efficiency of customs processes at border crossings on Euro-Asian overland routes has the potential to shorten transit times by four to seven days, helping ease rail flows on the three main corridors between China, Central Asia, Europe, South East Asia and South Asia.

"Among these corridors, the northern route – using the Trans-Siberian railways or Kazakhstan's rail system – is currently the only route with stable and reliable transport services and infrastructure," said the report.

"[But] Azerbaijan, Kazakhstan, Georgia and Turkey have agreed to construct the Trans-Caspian International Transport Route as part an intermodal East-West transport infrastructure initiative."

The report said the economic case for rail transport from Asia to Europe was clear and in China there was now considerable political will to increase network capacity.

"Although transport by rail is five times more expensive than transport by sea, it is about 1.7 times faster," said ITF.

"This makes rail an attractive mode for transporting highly time-sensitive goods, such as fashion goods, electronics, car parts and perishables including food."

In Africa, the report found that investments in infrastructure projects were accelerating quickly and a number of plans and initiatives could further the continent's integration and boost trade.

The construction of the Mombasa-Kampala corridor between Kenya and Uganda, for example, had reduced transit times from fifteen to five days, while in Namibia and Zambia, the Walvis Bay Corridor Group had reduced customs clearance time from forty-eight to two hours.

"Greater connectivity between South Africa and eastern Africa is expected to be developed by 2030, and between eastern and western Africa by 2040," added the report.

"In Africa, trans-continental freight transport options could lead to increased intra-African trade and could also shorten international trade routes by 2050, if current and planned transit infrastructure projects in Africa continue to reap similar benefits in terms of cost and time savings."

However, the report also warned that while the environmental decimation of the Arctic could mean the Northern Sea Route will be ice-free on a seasonal basis sometime between 2040 and 2050, operators would face high costs.

"Apart from meteorological conditions and heightened safety concerns in Arctic waters, operators face logistical barriers due to scarce infrastructure, strict certification requirements, and tight environmental regulations," the report noted.

"The Polar Code sets strict standards including on ship design, crew training, fuel tank characteristics, or sewage discharge.

Even more stringent environmental regulations could apply to Arctic shipping in the future, for instance regarding the use of heavy fuel oil, already prohibited in the Antarctic.

Conforming to these regulations reduces the net economic gains of shorter transit times."

(from: lloydsloadinglist.com, June 14th 2019)

REEFER

TOTE MARITIME PUERTO RICO ADDS 220 NATURALINE® REFRIGERATION UNITS FROM CARRIER TRANSICOLD

Further extending its commitment to environmental sustainability, TOTE Maritime Puerto Rico (TMPR) is enhancing its fleet with 220 containers chilled by the industry's only natural refrigerant-based system, the NaturaLINE® unit from Carrier Transicold.

TMPR is the first shipping line to place a sizable quantity of NaturaLINE units into service on U.S. domestic trade routes.

NaturaLINE units use carbon dioxide (CO2), a refrigerant with the lowest global warming potential (GWP) among all refrigerants currently used in container systems.

Carrier Transicold is a part of Carrier, a leading global provider of innovative heating, ventilating and air conditioning (HVAC), refrigeration, fire, security and building automation technologies.

TMPR's new refrigerated containers – a mix of 40-foot and 45-foot high-cube models – are being acquired via lease from SeaCube Containers LLC.

NaturaLINE units use CO2 refrigerant, also known as R-744, which has an ultra-low GWP of 1, in comparison to GWPs that range from 600 to nearly 4,000 for refrigerants used in other container systems.

R-744 is also non-ozone depleting, widely available, relatively inexpensive and classified as A1 for low-toxicity and no flame propagation.

"With its natural refrigerant, NaturaLINE units help fleets guard against regulations, environmental taxes and phase outs that other refrigerants could be subject to during the operational life span of units purchased today," said David Appel, president, Carrier Transicold & Refrigeration Systems.

R-744's outstanding thermal characteristics enable the energy-efficient NaturaLINE unit to achieve minus 40 degrees Celsius, along with significantly quieter operation, tighter temperature control and with no operating restrictions.

Previously, reaching such a low temperature required a container system using a refrigerant with a GWP nearly 4,000 times higher than R-744.

"TMPR tested NaturaLINE units in our fleet and found that in all temperature ranges, its capabilities surpassed our expectations," said Jim Wagstaff, vice president operations, TOTE Maritime Puerto Rico.

The NaturaLINE unit's deep-frozen capacity was an important factor for TMPR when considering moving cargoes, such as ice cream, through the tropics because of the high level of performance required to ensure optimal conditions.

According to Wagstaff, the NaturaLINE unit's use of environmentally sustainable refrigerant supports its pledge to be the most environmentally responsible organization in the maritime industry.

"TOTE's commitment to Puerto Rico is about more than reliable deliveries and exceptional customer service," said Chris Willman, vice president sales & marketing, TOTE Maritime Puerto Rico.

"It's about leading the industry with best-in-class, environmentally sustainable products, such as NaturaLINE refrigeration units and our emissions-reducing Marlin-class vessels, the first containerships efficiently powered by liquefied natural gas (LNG), providing service to the island since 2015."

SeaCube Containers, one of the world's largest purchasers and lessors of refrigerated containers, has been a proponent of the technologically advanced and innovative NaturaLINE unit as a way to help its clients reduce their carbon footprints.

"With this order, we are pleased to be able to help TOTE Maritime Puerto Rico in achieving its environmental goals," said Robert Sappio, CEO, SeaCube.

"Through this commitment to NaturaLINE technology, TOTE Maritime Puerto Rico and SeaCube Containers are helping to advance the container shipping industry toward a more sustainable future," Appel said.

For more information about the NaturaLINE refrigeration unit from Carrier Transicold, visit www.transicold.carrier.com.

(from: cargobusinessnews.com, June 12th 2019)

ON THE CALENDAR

▪ 24-30/06/19	Genova	Genoa Shipping Week
▪ 25-26/06/19	Dar Es Salaam	3rd Edition of the African Ports Expansion Summit
▪ 28-28/06/19	Genova	Shipbrokers and Shipagents Dinner 2019
▪ 28-30/08/19	Jakarta	Inamarine 2019
▪ 10-10/09/19	Londra	12th Annual Shipping & Marine Services Forum
▪ 11-13/09/19	Amburgo	Seatrade Europe Cruise & River Cruise Convention
▪ 11-13/09/19	Amburgo	MARINE INTERIORS Cruise & Ferry Global Expo
▪ 19-24/09/19	Genova	59° Salone Nautico
▪ 23-25/09/19	Doha	Ports & Maritime Evolution, Rail & Logistics Evolution, Road & Logistics Evolution Qatar Assembly & Expo
▪ 23-24/09/19	Roma	AIIT 2nd International Congress on transport infrastructure and systems in a changing world
▪ 03-05/10/19	Piacenza	GIS 2019 - Giornate italiane del sollevamento dei trasporti eccezionali
▪ 06-09/10/19	Limassol	16th "Maritime Cyprus 2019" Conference
▪ 15-18/10/19	Oslo	15th GreenPort Congress and Cruise 2019
▪ 15-15/10/19	New York	11th Annual New York Maritime Forum
▪ 21-21/10/19	Atlantis	The Maritime Standard Awards 2019
▪ 22-22/10/19	Atlantis	The Maritime Standard Tanker Conference 2019
▪ 23-23/10/19	Parma	Logisticamente On Food
▪ 06-06/11/19	Abu Dhabi	The Maritime Standard Ship Finance and Trade Conference 2019
▪ 27-28/11/19	Madrid	International Cruise Summit 2019
▪ 03-05/12/19	Pordenone	Navaltech 2019 - Marine Technologies Expo
▪ 04-05/12/19	Barcellona	Cruise Ship Interiors Expo

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