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Ukraine war threatens more supply chain chaos

As *Bulk Distributor* went to press, Russian troops were still waging war in Ukraine.

Just as the global economy started to emerge from two years of Covid-19 related disruption, President Vladimir Putin's invasion of Russia's southern neighbour is now plunging the logistics industry into further uncertainty.

The direct impact of the conflict on regional trade, as far as *Bulk Distributor* readers are concerned, is largely confined to the collapse of Ukraine's exports of sunflower oil and related products. Ukraine is the world's biggest exporter of sunflower oil. This is mostly carried in parcel tankers, but smaller consignments are often shipped in flexitanks.

However, it is the ripple effects on shipping in and out of the Black Sea, and the consequences of the severe sanctions imposed on Russia by the international community, that pose the greatest uncertainty.

Parts of the Black Sea and Sea of Azov are now dangerous or impassable. There have been missile attacks on vessels and ship arrests and lane closures for commercial shipping. The Ukrainian seaports of Odessa and Mariupol are closed, damaged, and/or under attack. Trade and container movements have ceased, and cargo and equipment are stuck at ports.

"On the Asia-Europe trade we could see more demand for maritime shipments and equipment out of Asia due to modal shift," said Christian Roeloffs, co-founder and CEO, Container xChange. "For example, the Asia-Europe rail and road routes through Russia and Belarus are reportedly closed and/or being used by the military. Borders with the EU are closed, and the closure of air space across Russia and Europe has also reduced air freight capacity."

Overtaking Covid

Alex Bullard, of consultancy Transport Intelligence, says the Ukraine crisis has now overtaken Covid-19 as the biggest threat to global supply chains.

The crisis could leave the world facing extended reductions in energy supply, leaving governments worldwide grappling with ways to ease the pain of soaring fuel and heating prices on consumers

Ukrainian seaports Odessa (pictured) and Mariupol are closed, damaged, and/or under attack

and businesses.

The sanctions will likely impact food security, as well as rare metal supplies needed to sustain production of key technologies.

While Black Sea shipping has been hardest hit, the crisis also has a knock-on effect on Baltic trades, although ocean carriers have reportedly been quick to redeploy intra-Europe tonnage from Russian services to regions where capacity is in short supply.

According to data from consultancy Alphaliner, carriers have withdrawn some 10,000 TEU of weekly capacity after international sanctions forced the suspension of most Baltic services to Russia.

"Vessels that have become redundant in the Baltic trade are more than welcome on transatlantic routes, where several carriers have already organised sailings outside their alliances, as they are short of space," said the firm.

Unstable landbridge

Considerable uncertainty now looms over the Eurasian transit corridor, which has seen remarkable growth in recent years making the landbridge between China and Europe a realistic alternative to maritime transport.

The Group of European TransEurasia Operators and Forwarders (GETO) says the conflict could have a negative impact on the corridor, which could disrupt critical supply chains and eliminate thousands of jobs.

"In GETO's opinion, there is a significant risk that the Ukraine conflict will cause irreparable damage both to the entrepreneurial activities of member companies and to markets and customers. The years of development work on the Eurasian corridor could be irrevocably undone," the trade body stated.

The main priority of GETO and its members is to maintain their own service offer, especially for Europe, as long as possible. As far as possible, the task is to create the conditions for the Eurasian corridor to be able to be rebuilt and developed even after a possible collapse of the market.

"Climate-friendly and reliable freight transport by rail is becoming increasingly important for global supply chains," GETO continued. "Compared with aviation, rail produces around 95 percent fewer CO2 emissions and almost 70 percent fewer than trucks. Container ships have comparable emissions, but are much slower.

"For the economic zones of Europe, Central Asia and China, the Eurasian corridor is of huge strategic importance. Rail transport is fast, environmentally friendly and, above all, cheaper than air transport with currently almost the same transit time. This has had a positive impact, especially during the pandemic with its global repercussions. Freight transport on block trains has achieved growth despite the Corona pandemic and thus made a significant contribution to the stability of trade between China and Europe. The Ukraine conflict is jeopardising the successes achieved. GETO demands from its international partners to contribute everything in their power to preserve the corridor," said Harm Sievers, president of GETO.

Uncertainty now looms over the Eurasian transit corridor

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Global tank fleet nears 740,000 units


Reflecting a strong upsurge in demand a total of 53,285 new tank containers were built in 2021

ITCO's 10th Annual Tank Container Fleet Survey estimates that, at 1 January 2022, the global tank container fleet had reached 736,935 units worldwide, compared with 686,650 on 1 January 2021, a year-on-year growth of 7.3 percent.

Reflecting a strong upsurge in demand for new equipment, especially towards the end of 2021, a total of 53,285 new tank containers were built, compared with 35,800 the previous year – a growth of some 17,485 units.

The number of newbuilds was the industry's third highest (just behind 59,700 in 2018 and 54,650 in 2019).

The survey shows how, numerically, the industry continues to be dominated on a global level by a relatively small number of major tank container operators and leasing companies. The top 10 operators account for over 266,665 tanks, 60 percent of the global operators' fleet. The top 10 leasing companies account for 275,050 tanks, about 85 percent of the total leasing fleet (see p7).

While tank demand has increased over the past year, operating costs have also rocketed upwards, mainly as a result of container shipping lines pushing up freight rates significantly, while also extending transit times.

Short-shipping tanks and cancelled scheduled port calls have both become a regular challenge for tank operators. In addition, some shipping lines are refusing to carry tank containers – prioritising container slots for carrier-owned containers.

Commenting on the results of the survey, ITCO president Reg Lee noted: "Increased volumes from a wide range of cargoes from Asia – as well as space-shortages on containerships, port congestion and inland transport delays – these are all factors that have contributed to increased tank container demand in 2021.

"These issues, and especially the containership capacity shortage from Asia to the main markets of North America and Europe, have led to significantly increased freight rates. Despite these rate increases, demand for tanks has nevertheless continued to grow. One factor is that the high freight rates lead to an economic need to maximise the quantity of cargo shipped within an ISO container slot, with the tank container transporting about 60 percent more cargo compared with a container filled with drums."


A shortage of space on-board container ships remains a challenge

Looking ahead to the coming 12 months, Lee said: "The signs for 2022 are that there will be strong demand on all global trade lanes, but the challenge for tank operators to book space on containerships could continue to cause industry problems, as some shipping lines prioritise 'carrier-owned containers' rather than shipper-owned containers. There are no signs of improvement in the near term from the problems of space shortage. Customer demand remains strong, but much of the new vessel capacity will not be introduced into service for at least another year."

Commenting on the service side of the industry, Lee said that alongside the shortage of space on-board vessels, the tank industry also faces a shortage of tank container cleaning and repair capacity, as investment and expansion of tank depots generally is not keeping in line with global tank fleet expansion. Driver recruitment for tank hauliers also continues to be a problem for the industry.

www.itco.org

Augusteijn takes over at Stolt

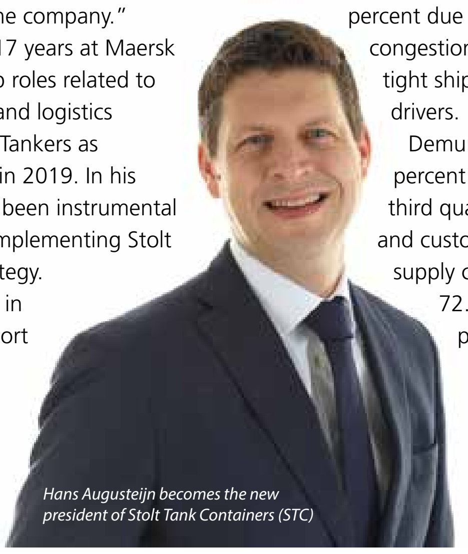
Hans Augusteijn has taken over as president of Stolt Tank Containers (STC) succeeding Michael Kramer, who will now assume the role of executive vice president, marketing and business development at parent group Stolt-Nielsen Limited.

Group CEO Niels G Stolt-Nielsen, commented: "The expertise in strategy and business transformation that Hans Augusteijn brings to the role, together with his passion for shipping and logistics, will help us to extend our leading position in the tank container industry.

"After 22 years as president of STC, Mike will be joining me at Stolt-Nielsen Corporate as executive vice president, marketing and business development, a role in which his in-depth knowledge and experience of the logistics business will be invaluable. I would like to thank Mike for the outstanding job he has done as the leader of Stolt Tank Containers, and for his loyalty and dedication to the company."

Augusteijn spent 17 years at Maersk in various leadership roles related to container shipping and logistics before joining Stolt Tankers as director of strategy in 2019. In his current role, he has been instrumental in developing and implementing Stolt Tankers' overall strategy.

He holds a degree in Logistics and Transport Management from the National Transport Academy, Venlo and an MBA in Strategy, Marketing and Distribution from the University of Nijmegen.


Hans Augusteijn becomes the new president of Stolt Tank Containers (STC)

Augusteijn said: "I am excited and honoured to be joining Stolt Tank Containers as president. Mike has done an outstanding job developing a strong business that is a true leader in our industry. STC's commitment to fostering long-standing relationships means we can access transport solutions for our customers that others simply can't. I look forward to continuing the growth and success of STC, including our progress on digitalisation, and to working with him and the rest of the leadership team to deliver safe, reliable services for customers."

STC reported fourth-quarter revenue of US$191.5 million, up from $174.4 million in the third quarter.

Transport revenue increased 12 percent driven by an increase in transport revenue per shipment, reflecting the steep rise in freight costs. This was partially offset by a reduction in shipments of 8.7 percent due to normal seasonal trends, port congestion and operational delays caused by tight ship capacity and a shortage of truck drivers.

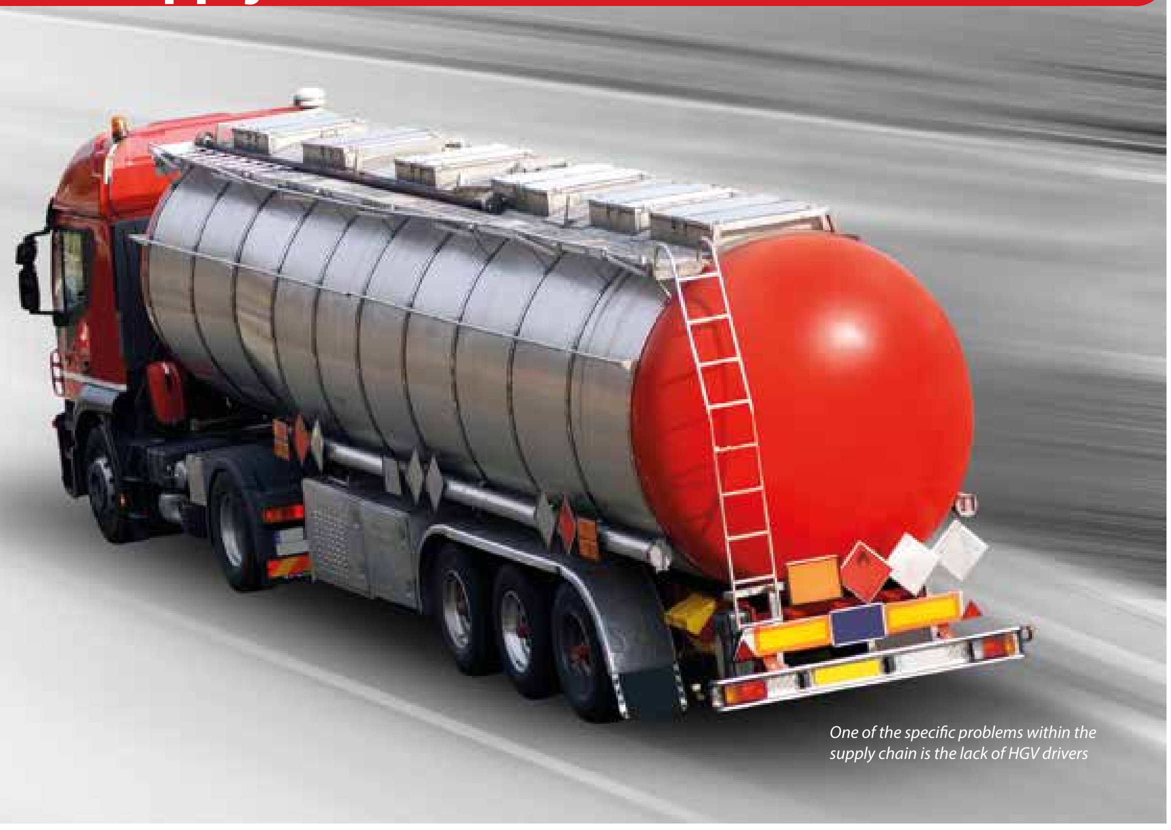
Demurrage revenue increased by 9.4 percent following a significant rise in the third quarter, driven by logistical bottlenecks and customers holding more tanks in their supply chains. Utilisation remained steady at 72.2 percent compared with 72.1 percent in the prior quarter.

STC reported a fourth-quarter operating profit of $36.4 million, up from $24.7 million in the third quarter.

www.stolt-nielsen.com

More than just an association

Tim Doggett, CEO of the Chemical Business Association (CBA), explains how the CBA represents the sector's commercial and regulatory interests at the highest levels and uses its extensive expertise to help not only members but the wider chemical supply chain



One of the specific problems within the supply chain is the lack of HGV drivers

Brexit and the pandemic continue to disrupt the chemical supply chain within the EU and are likely to leave a long-lasting legacy for the future.

The impacts and subsequent challenges affect not only the companies within the supply chain but their customers and downstream users alike.

EU chemical supply issues

Over the past two years, Brexit and the Covid-19 pandemic have caused a variety of issues for the chemical, petrochemical, pharmaceutical, food grade and mineral supply chains. Two of the most critical issues have been the considerable disruption throughout the supply chain, and changes to regulation.

One of the specific problems within the supply chain is the lack of HGV drivers which has been an increasing issue for many years. The root cause of what is, in fact, a global problem is simple; the number of drivers is continually falling while there is an ever-increasing demand for transport.

The declining number of drivers is primarily due to an ageing workforce that is not being replaced as quickly as it retires, or drivers are leaving the industry to work elsewhere.

While pay is, of course, an important point to consider, a poor perception of the profession, a lack of facilities and difficult working conditions have created significant issues in both retaining existing drivers and attracting and recruiting young people and women into the profession. Brexit, meanwhile, has caused the number of EU drivers working in the UK to decline and Covid-related illnesses and travel restrictions have brought even greater disruption.

At the same time, Brexit has brought regulatory changes, increased bureaucracy and new forms of paperwork that make the bulk transport of goods between the UK and the EU even more difficult. Additionally, UK REACH and the widening gap between EU and UK regulations is likely to present ongoing challenges, as chemicals currently used in the UK may be prohibited or even commercially unviable, causing serious manufacturing challenges and potentially resulting in some products no longer being available.

Helping members understand EU transport

The CBA offers members valuable and practical support in understanding EU transport as well as the changing import and export rules, bureaucracy, and paperwork.

Training is a vital part of the CBA's support, and it provides a wide range of workshops and seminars, available face to face and online, that cover areas such as compliance, regulations, security, and best practice. The association has fully qualified Dangerous Goods Safety Advisers (DGSA) and offers training to businesses about to recruit or have recently appointed DGSAs under the Carriage of Dangerous Goods Regulations. These seminars provide expert guidance on the DGSA roles and responsibilities. With regard to chemical security, where the CBA is an international thought leader, it also delivers workshops on transport and site security, covering areas such as personnel security, vetting and the threat of terrorism.

Brexit has brought regulatory changes, increased bureaucracy and new forms of paperwork

Representation and consultancy

The CBA represents the interests of the chemical supply chain and its members at the highest levels both within the UK and the EU as well as internationally. Having identified the driver shortage problem at an early stage, it continues to work hard within the UK and in the EU on behalf of members to solve disruption. It persistently lobbies the UK government, raises, and highlights supply chain issues through regular appearances on the BBC, ITV, and other national news programmes.

The organisation also engages with stakeholders to find practical short-term fixes and long-term solutions. The leadership it demonstrated on the HGV driver shortage issue led to the introduction of various short and medium-term remedies, and it continues to work with various stakeholders on longer term solutions.

The CBA has repeatedly raised concerns with the UK government over UK REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). Introduced as a UK replication of EU REACH following Brexit, there are serious questions about its practicality and workability, as well as the need for duplication and repeated costs. The organisation achieved a significant step forward in its efforts towards the end of 2021 when Defra announced it would consult on extending the UK REACH deadlines and investigate a new, more workable, and affordable model capable of delivering the appropriate levels of data to support UK REACH registrations.

Aside from industry-wide lobbying, the association also acts as an advocate, representing businesses in Westminster, Whitehall, and Brussels. Within the EU, it has effective working relationships with lawmakers and regulators as well as working closely with various national chemical industry associations across Europe. It is also in discussion with the German Embassy and Indian High Commission to promote trade between these important economies and the UK.

The CBA not only represents its members; its near 100 years of experience and the expertise of its members mean it is frequently called on to provide support and direction to governments, executive bodies and other stakeholders in the UK, the EU and globally. With the UK government, for example, it works closely with departments such as the DfT and DIT, as well as the Health and Safety Executive, to provide industry insights and advice.

Indeed, the CBA often takes the initiative by developing new solutions, such as working with stainless steel container manufacturer Thielmann to design a new intermediate bulk container (IBC) for the transport of ammonia (see p14). Approved by the DfT in 2019 and with the first carriers in use in 2021 before the expiry of Multi-Lateral Agreements (MLAs), this innovative new design has helped to avoid the issues regarding the transport of ammonia solution in territories contracted to the ADR agreement.

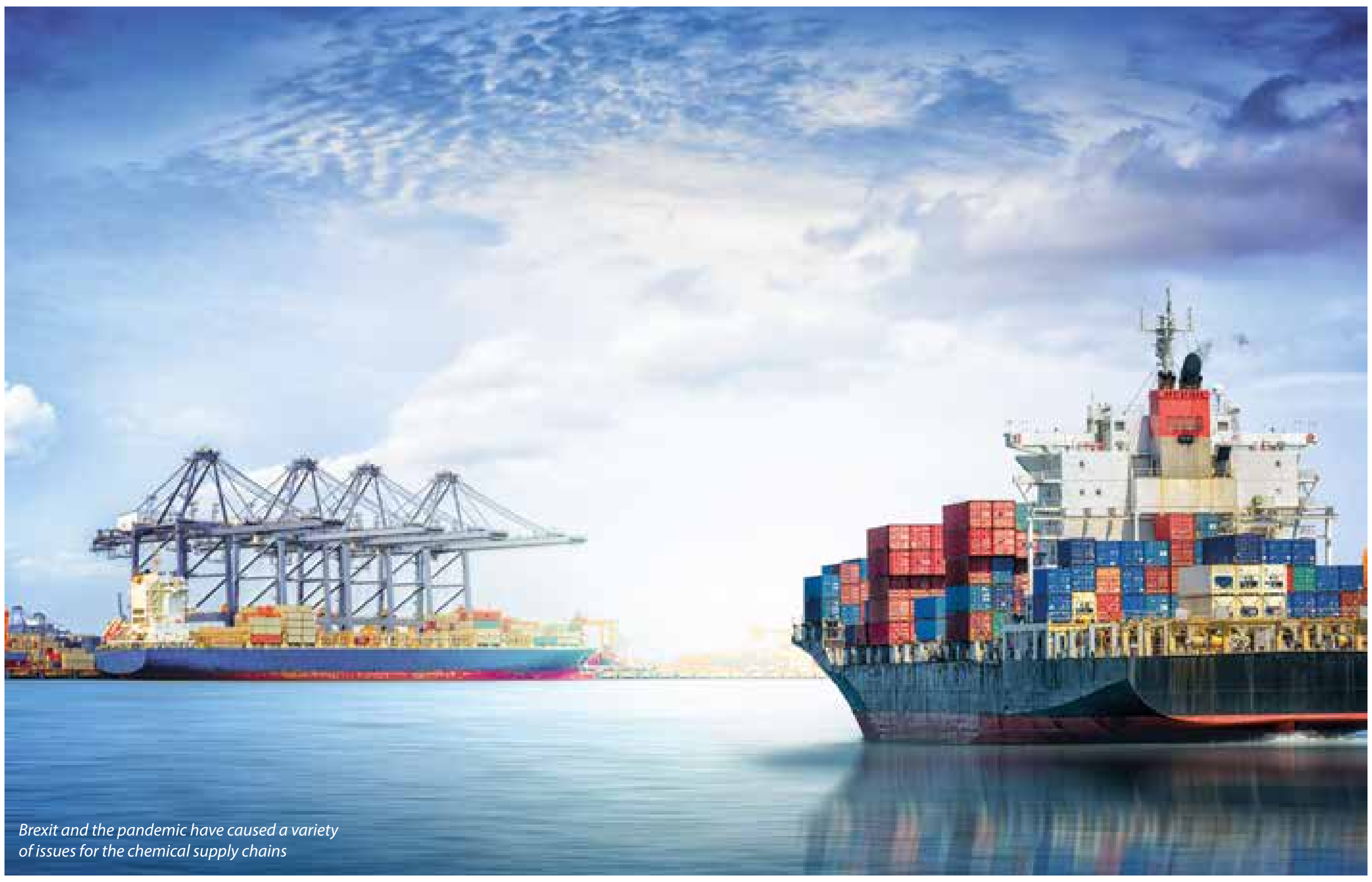
No stranger to collaboration and partnership, the CBA has a rich history of working closely with other organisations and stakeholders. The association is part of the Alliance of Chemical Associations (ACA) and various other organisations and, when working on areas of mutual interest, collaborates with the CIA (Chemical Industries Association) and BCF (British Coatings Federation).

A dedicated helpdesk where members can assistance with everything from technical advice to import/export customs formalities is one of the services the organisation has seen record levels of demand for over the course of the last few years thanks to the changing national and global landscape.

With ongoing issues around compliance, regulation, security, globalisation, sustainability and more, the Chemical Business Association provides members with invaluable support in an ever changing market.

www.chemical.org.uk

The widening gap between EU and UK regulations is likely to present ongoing challenges



Brexit and the pandemic have caused a variety of issues for the chemical supply chains


In 2021 CS Leasing was able to supply tanks consistently throughout the year, often ordered at attractive prices


Designing, building and delivering solutions for specific needs, CS Leasing's business extends beyond tanks to dry freight specials for bulk commodities

CS steers a steady course

As CS Leasing is named fourth largest global tank container lessor in ITCO's 2022 global fleet survey, Bulk Distributor caught up with the company's management team to discuss key industry trends, challenges and opportunities for the year ahead

As with so many industries, the global tank container market slowed down considerably in 2020 due to the Covid-19 pandemic. This showed up in deflated 2020 production of new tanks at a total 35,000 units according to ITCO.

This is the lowest reported tank fleet growth and replacement since 2011, observes Frank Vaughan, CEO of CS Leasing, named as the fourth largest global tank container lessor in ITCO's latest 2022 market survey.

The ITCO report revealed that fleet growth rebounded in 2021 to 53,285 newbuild tanks, almost back to pre-pandemic levels. That is positive news, says Vaughan. However, he cautions that despite a strong demand environment, the market will see a number of challenges in 2022.

"Covid shutdowns caused significant supply chain disruption in many jurisdictions throughout 2021," he notes. "Commodity prices increased, further driving up the price of tank containers and all other container types. Tank prices and lead times increased steadily. Coupled with spiralling shipping rates and tight shipping capacity, customers have found it increasingly difficult to maintain inventories in key markets.

"This created difficult operating conditions for many of our customers and our focus remains to use our strengths to support their operations and growth plans."

With a strong capital base and extensive experience in both the logistics and the wider container market, CS Leasing placed regular orders as prices and lead times went up in 2021, says Vaughan.

"We were therefore able to supply tanks consistently throughout the year, often ordered at attractive prices, allowing us to partner with our customer base to achieve their business goals," he explains.

However, industry challenges are set to continue into 2022, adds Tim May, CS Leasing COO, not least with the latest Covid outbreaks, lockdowns and geopolitical events. "Recently, nickel prices have increased in response to the escalating military action in the Ukraine, potentially increasing stainless steel prices with obvious impact for tank container production," he says.

"Through partnering with both vendors and customers, we have found ways to move new tanks to key markets including Europe, US and Asia and strive to maintain a rental-ready fleet in hub locations. We have already made significant orders for delivery throughout 2022 to enable continued expansion and work with customers to support their growth."

The challenging market conditions of the past few years have also contained some great growth opportunities, says Rick Reid, VP Americas. "In 2021 and 2022 we have successfully entered a number of new markets, including fuel providers in the Caribbean and aviation and navigation fuel consumers throughout the US, often delivering equipment designed and built to the customer's specific needs."

Bulking up

As noted by Reid, a key area of development, especially in the US and Australia, has been CS Leasing Equipment Services, which provides clients with bespoke options to design, build and deliver container solutions for their specific needs.

That extends beyond tank containers to the dry freight specials business for bulk commodities and specialist cargoes.

"Historically this has been centred in Australia, but we are increasingly seeing a global demand and now have customers throughout the Americas and Europe," says David Sprod, VP Australia.

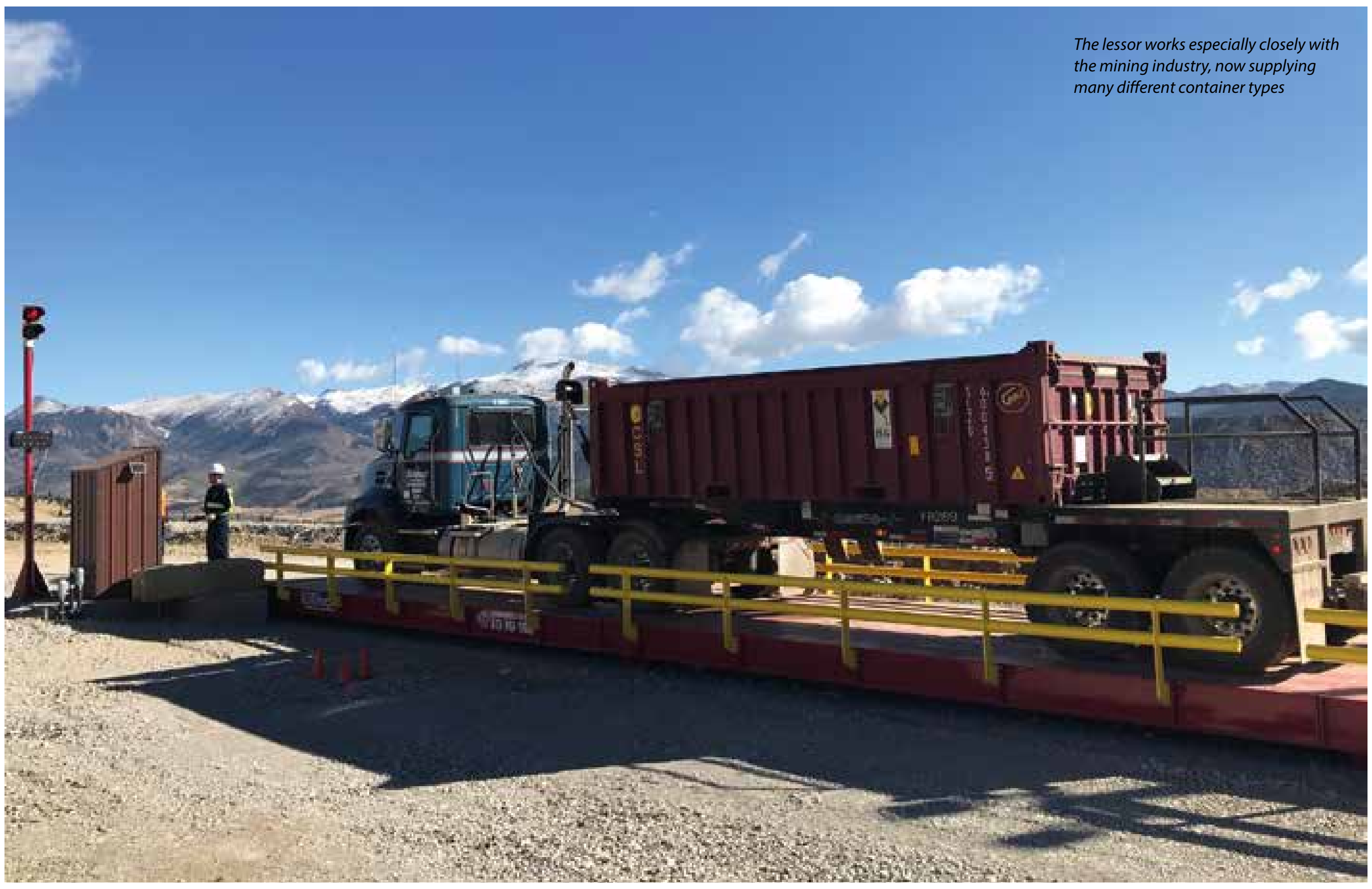
CS Leasing works especially closely with the mining industry, now supplying many different container types that suit the specific product to be shipped, explains Sprod. That includes copper concentrate, iron ore, nickel concentrate, sulphur, magnetite, coal and cement.

"As with many of our container assets, there is a strong environmental push to design, operation and materials handling and many of these containers now have a dust free logistics loading process for bulk minerals, fertilisers and grains," notes Sprod. "We help our customers comply with increasing environmental regulations in various jurisdictions with a young fleet that is tested and certified to BK2 and IMDG requirements for safe transport of dangerous dry bulk cargo by road, rail or sea."

Aside from providing bespoke equipment to suit some of the world's most demanding bulk and specialist commodity supply chains, CS Leasing is also responding to the evolving market for equipment financing and ownership. That includes the increased demand for shipper owned containers and other flexible options to suit changing market circumstances, says May.

"We feel it's important to offer customers a number of different leasing options, including lease purchase and sale and leaseback transactions. These can be especially useful as some customers look to strengthen and grow their own fleets."

And last, but not least – people. "As we continue to grow our fleet and customer base, we have added resources to our technical, marketing and operations departments. We still have a lot of growth ahead of us and are actively looking for well qualified candidates who are excited about global logistics and want to join CS Leasing, one of the fastest growing companies in the industry, especially in Europe and Asia," concludes May.


The lessor works especially closely with the mining industry, now supplying many different container types

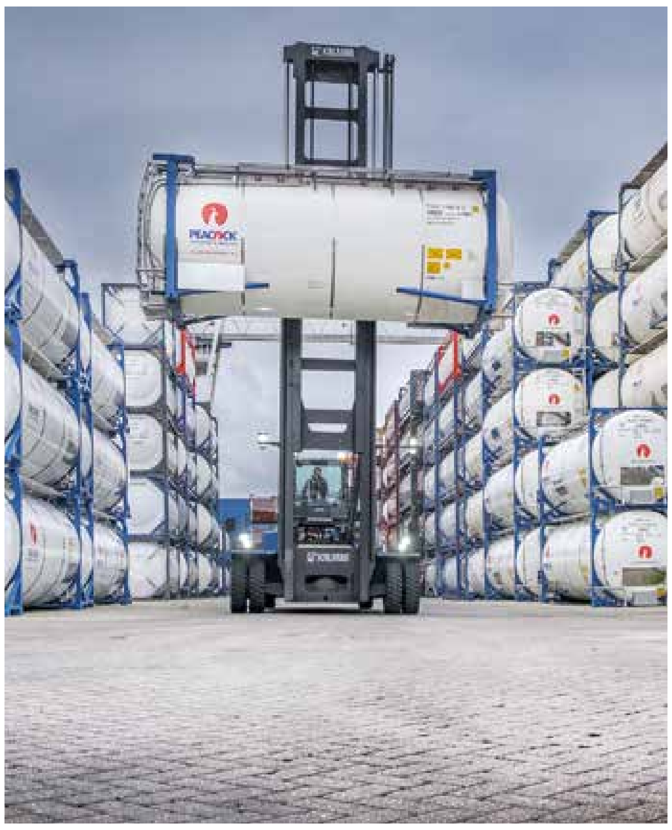
www.cslintermodal.com

Tank leasing still prospering

The top 10 tank container leasing companies accounted for about 85 percent (275,050 tanks) of the total leasing fleet (322,950 tanks), according to the 2022 ITCO Tank Container Fleet Survey.

This represented an increase in concentration from the 2021 survey which stood at 79.5 percent.

Most of this rise in industry concentration can be put down to the acquisition by Peacock Container of the Gem Container fleet. This saw Peacock's total fleet more than double during the year from 7,500 to 17,500 units.



Following the acquisition of Gem Container's assets Peacock Container's total fleet more than doubled from 7,500 to 17,500 units

Meanwhile, the three biggest lessors – EXSIF Worldwide, Eurotainer and Seaco Global - accounted for 51 percent (164,850 tanks) of the total leasing fleet, compared with 50.2 percent last year. It should also be noted that a further 20,000 tanks owned by Raffles Lease are also under the same umbrella group as Eurotainer, a joint venture between Canadian fund management company Caisse de dépôt et placement du Québec (CDPQ) and a fund managed by Frankfurt-headquartered DWS Group.

The total leasing fleet rose during 2021 from 316,710 to 322,950 units. Of these, the number of tanks recorded as being on lease to operators, shippers and other users was 284,195, with 'idle' leasing company tanks, ie, those undergoing M&R, testing and storage, standing at 38,755.

This represented a fleet utilisation rate of 88 percent, against 86 percent a year ago.

Lessor	HQ	Fleet	
		2022	2021
EXSIF Worldwide	USA	71,350	66,476
Eurotainer	France	51,500	49,500
Seaco Global	Singapore	42,000	43,000
CS Leasing	USA	23,450	18,030
Raffles Lease	Singapore	20,500	16,000
Trifleet Leasing	Netherlands	20,190	19,031
Peacock Container	Netherlands	17,500	7,500
Triton International	USA	11,400	13,000
Albatross Tank Leasing	China	9,500	7,500
TWS Rent-A-Tainer	Germany	7,660	7,465
International Equipment Leasing	USA	7,600	7,100
NRS Group	Japan	7,000	7,000
Multistar Leasing	South Africa	5,140	5,200
Modalis	France	4,000	2,800
Tankspan Leasing	UK	3,030	3,119
Matlack Leasing	USA	2,500	2,500
MCM Management	Switzerland	2,200	2,000
Noble Container Leasing	Hong Kong	1,730	1,300
Unitas Container Leasing	Bermuda	1,600	1,600
Combipass	France	1,500	1,500
Tristar Engineering	Switzerland	1,100	1,100
Estimated total for others under 1,000		20,000	

Taking on gas

A novel system for fuelling container vessels with LNG receives approval in principle

The capacity of each tank is 31 gross tonnes and about 33 cbm of LNG

Liquefied natural gas (LNG) has for some time been seen as an important transition fuel along the road to decarbonisation.

This is particularly so in marine transport where industry stakeholders are desperate to push alternatives to bunker fuel, an especially noxious and polluting form of hydrocarbon energy.

Building shore-based fuelling infrastructure is expensive and long-winded, but already a number of small-scale solutions have come to light. ISO tank containers designed to carry LNG have been on the market for many years, although these are generally used simply to transport fuel from A to B, and sometimes to fill bunker tanks in smaller vessels, such as river barges.

However, one recent innovation is a jointly developed containerised LNG solution offered by Marine Service and Newport Shipping. An array of the tanks could be used to provide power directly to larger container ships while being stowed on board in a modified container stack.

In March, the partners received an approval in principle from Bureau Veritas (BV) for the 40ft ISO LNG Fuel Tank Container System which is suitable for LNG-fuelled newbuildings and retrofits of container vessels.

The LNG fuel tank container is a class approved Type C LNG fuel tank in accordance with the IGF-code and is based on the German TÜV certified IMDG Container. The capacity of each tank is 31 gross tonnes and about 33 cbm of LNG. The containers have a fail-safe dry quick coupling connection and are approved for loading in up to seven layers high stacks. The stainless-steel double-walled tank is also vacuum insulated and has up to 80 days holding time.

The concept consists of container stowage on free deck in a safe area. The LNG piping and venting system, and firefighting systems, are integrated in the container cell guides structure. The gas handling room is arranged adjacent to the container storage and separated from the tanks by a cofferdam and fire protection equipment, allowing the system to feed low pressure and high pressure fuel gas systems for all known 4-stroke and 2-stroke dual fuel engines. A full redundant control, alarm & monitoring system for remote system operation, gas and fire alarm with interface to ships' automation is part of the system.

The LNG piping and venting systems are integrated in the container cell guides structure

L-r: Christian Krämer, managing director Marine Service GmbH; Rolf Stiefel, Marine chief executive for Central Europe and Russia, Bureau Veritas; and Ingmar Loges, managing director Newport Shipping

Portability

Since LNG containers are portable, the total number of containers can be easily optimised according to the owners' requirements. The developers say that being simple and easy to install on board, when a ship is in port, the empty containers can be taken out and replaced by new filled ones.

Ingmar Loges, managing director of Newport Shipping, explains: "The global shipping industry faces unprecedented challenges as environmental regulations tighten. The shipping industry needs alternatives. The containerised LNG concept provides an answer to these challenges."

Marine Service develops several LNG fuel solutions including tank containers, which are an alternative to traditional LNG bunkering.

Newport Shipping is offering customers full retrofit services for Marine Service's LNG fuel tank container solutions at the 15 yards with which it works in co-operation. With flexible financing options and a quick delivery of turnkey LNG retrofit options the company expects that this will present itself an attractive option for clients in the near future.

"We are glad to have reached an approval in principle from BV for our containerised LNG as fuel solution. LNG is one of the most promising alternative fuels right now," said Christian Krämer, chairman of Marine Service GmbH.

Hamburg-based Marine Service is part of the family-owned Krämer Group, which also includes the shipping company Chemikalien Seetransport. The company was founded in 1958 as a marine engineering and consultancy company for the development and design of seagoing vessels, especially LNG carriers. Additionally, Marine Service designs, develops and commissions its own turnkey LNG fuel gas supply system for cruise vessels and other ships. It is already installed on board four cruise vessel newbuildings.

UK-registered Newport Shipping specialises in providing drydocking services for ship repair works, purchase and delivery of 'owners' extras', such as spare parts, and paint supply.

The group operates through a network of 15 shipyards with 38 docks capable of handling all vessel sizes and approximately 2,500 dockings annually across the Atlantic and Pacific trading zones.

On 1 March, Newport joined SEA-LNG, a multi-sector industry coalition established to demonstrate LNG's benefits as a viable marine fuel. The addition of Newport Shipping is reckoned to strengthen the operational skill base of SEA-LNG's membership across the LNG marine fuel value chain.

www.ms-de.eu
www.newportshipping.com

Get to know 'Super Gloria'

Dinges Logistics welcomes the latest addition to its fleet

By using Super Gloria, Dinges can place containers both lengthwise and crosswise and enables a potential 5-high stacking

Since the beginning of 2022, Dinges Logistics has additional support at its hazardous goods storage in Grünstadt, Rhineland-Palatinate, Germany.

At the site, 'Super Gloria' is now in operation; a reachstacker supplied by handling equipment manufacturer Kalmar. With a tare weight of approximately 105 tons, the model DRG450-82S5XS is the heaviest machine of the fleet and already the company's second Kalmar reachstacker.

Kalmar's Super Gloria has a Volvo Stage EU5 engine with ZF transmission. The lifting arm has a length of 13.2m. With a wheelbase of 8.25m, the machine is one of the largest reachstackers available on the market. Through features such as the horizontally movable driver's cab, special noise insulation and camera systems, the machine not only meets the latest state-of-the-art technology, but also complies with the highest safety standards.

By using Super Gloria, containers can be placed both lengthwise and crosswise with 1,000mm negative lift into the existing hazardous goods tubs. Furthermore, the machine enables a potential 5-high stacking of the tank containers and even in the fourth container row it still has a load capacity of 32 tons. Super Gloria therefore represents an optimal addition to the Dinges Logistics fleet.

Although it has only been in operation for a few weeks now, it is already having a major effect, as the available space volume can now be used in the best possible way thanks to the special features of the new machine, such as its enormous load capacity and the negative lift described above.

The machine not only meets the latest state-of-the-art technology, but also complies with the highest safety standards

Optimising space

"Previously, the challenge was that we didn't have a reachstacker with negative lift, so we couldn't fully use the space available in our hazardous goods storage when positioning tank containers," explained Ingo Dinges, owner and managing director of Dinges Logistics. "Weighing up the cost-benefit aspects showed us that Super Gloria had clear advantages for us, and that is why we ultimately opted for the machine."

Dinges Logistics is a specialised service provider for transport and logistics solutions in the area of chemical transport and petrochemicals, for both hazardous and non-hazardous transport, as well as GMP+ certified and waste transport management.

The company established a philosophy of being a 'one stop solution' for the industry by offering value-added services. This means that it provides not only transport services, but also tank cleaning and workshop services as well as an own container terminal and hazardous goods storage. At the Grünstadt the terminal, there are currently a total of 600 slots available for tank containers, 108 of which are for loaded containers with ADR classes 3, 6, 8, and 9. In addition, the company also offers cooling and heating services at the container terminal to make sure that every product is stored according to its individual needs.

https://dinges-logistics.de

Boasso signs up PM Rees


In addition to tank cleaning, PM Rees offers repair, storage and other depot related services

Boasso Global subsidiary Isotank Services last year completed the acquisition of PM Rees & Sons and Atlantic Tank Clean Barry from owner Peter Rees.

PM Rees is a tank services and trucking business in Wales, UK. Atlantic Tank Clean Barry is an SQAS accredited tank wash facility contained within the PM Rees site.

The tank wash consists of three cleaning bays; two high pressure bays and one low pressure bay. Each has three spinners and a maximum water temperature reaching +90degC.

Services include tank testing, external cleaning, hose testing, IBC cleaning, CIP cleaning facility, tanks on steam, and electric heating.

"We are tremendously excited about the acquisition of PM Rees, which helps continue to build out our international footprint with a strong position in the strategically important chemical manufacturing hub in southern Wales," said Joe Troy, chairman and CEO of Boasso Global.

"More importantly, we are fortunate that Peter Rees has agreed to stay on with us in a leadership role, providing Boasso Global with his enormous depth of knowledge of the tank container services and transport industry, and his unparalleled customer relationships."

In addition to tank container cleaning, PM Rees offers repair, storage and other depot related services. In 2010, the company set up Tachograph Services Limited which can perform tachograph calibration and annual tachograph inspections for commercial vehicles on site.

The firm has 39 drivers providing tank transport in Wales and other UK markets. Peter Rees will work directly with Colin Garnett, Boasso's SVP – European operations, to help grow the company, share best practices and expand capacity.

"I am excited to join the Boasso Global family," said Peter Rees. "I have known Colin for many years and I look forward to working with him to grow our collective UK business and find ways to enhance services to our customers."

Boasso Global was advised by Archers Law LLP as legal counsel and Smailes Goldie Group as financial advisor. Financial and legal terms of the transaction were not disclosed.

www.boassoglobal.com

VdB expands in West Africa

In January this year, Van den Bosch started working with Amaris Terminals for its new cleaning station in Ghana.

Due to growing demand and an increasing number of customers from West Africa, the logistics service provider is expanding by means of investment in new ISO tank equipment and a new state-of-the-art cleaning station. The depot is now fully operational and running at full capacity in co-operation with its new partner.

Amaris operates the largest container services terminal in Tema, Ghana, and in addition to appointing the company as a new depot partner, Van den Bosch also has a new agency partner, ISS-GH Ghana Ltd.

Van den Bosch's new cleaning facility in Tema is a replacement for the old facility that opened in 2016 as West Africa's first such depot. "The new cleaning facility, built within a 40ft high cube container, was constructed with the latest modern technology in co-operation with Gröninger Cleaning Systems," said Mark Ashton, commercial director at Van den Bosch DMCC.

"In addition, the cleaning station is built in full compliance with European quality standards for food grade, kosher and halal cleaning protocols. With this, we are supporting the innovative character of Van den Bosch. The new technology enables us to focus on providing sustainability and allows us to continue our focus on the development of import & export, and bulk liquid solutions, among other things."


Van den Bosch's new cleaning facility in Tema replaces the former facility that opened in 2016 as West Africa's first such depot

Following the opening of the Ghana facility, Van den Bosch is working towards a second site in West Africa located in Abidjan, Ivory Coast. This depot will also be built according to European quality standards.

www.vandenbosch.com

Imperial opens in Terneuzen

Imperial has opened a new, larger tank-cleaning facility, to extend its cleaning services for third parties as well as its own Netherlands-based tanker fleet.

The new facility, at Terneuzen, replaces Imperial's smaller site at Axel. Gröninger Cleaning Systems kitted out the new station, which has three separate cleaning bays: two for standard chemical products (operating at 100-200 bar pressure and with 5-6 cleaning heads), and a third cleaning line with a re-circulation cleaning system for heavy-duty cleaning of substances such as latex or synthetic resins.

Latex is a common cargo, and Imperial chose the unit so that employees do not need to enter a tank. The system circulates hot water with a cleaning agent at a relatively low pressure and high volume through the tank, thereby rinsing the tank thoroughly.

IBC cleaning can also be performed at the new station, while the extended steam facilities allow tank heating out of hours and at weekends. A significant upgrade is provided by an on-site tank container depot for storage of empty and uncleaned units, which increases the flexibility of the cleaning services.

Robert Libbers, Imperial's site manager in Terneuzen, explained: "Our new, state-of-the-art tank cleaning station accommodates the increasing demand for third party cleaning and storage facilities, provides even higher standards of quality, and enhances worker safety as the need for entry into tanks can now be virtually eradicated.

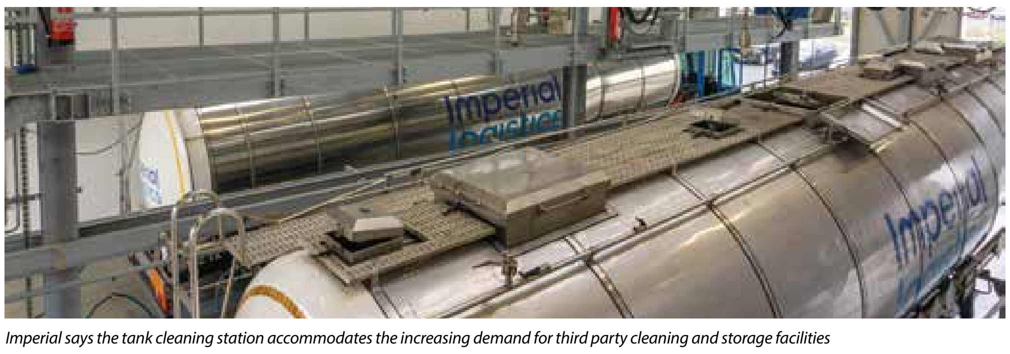

The Terneuzen facility replaces Imperial's smaller site at Axel

"Furthermore, we are now more closely aligned with our group's sustainability objectives, having minimised water consumption through the sophisticated re-circulation system. Existing and new customers will greatly benefit from our newly-expanded cleaning and storage services."

René van de Ven, managing director at Imperial in the Netherlands, added: "The investment in the new cleaning station at Terneuzen supports our policy to increase continuously our services and raise safety to the highest level – in line with our other tank cleaning sites, at Krems (Austria) and Salzgitter (Germany)."

The facility is certified to ISO 9001 and ISO 14001 and is SQAS assessed. It is also a member of ATCN (the Dutch association of tank-cleaning specialists, which sets quality standards for its members). The base is open Monday-Friday from 07:00-19:00.

www.imperiallogistics.com


Imperial says the tank cleaning station accommodates the increasing demand for third party cleaning and storage facilities

Hupac traffic grows nearly 11%

Despite the difficult economic situation Hupac managed to grow combined transport volumes last year

Combined transport operator Hupac increased traffic volumes by 10.7 percent to around 1.1 million road consignments in 2021.

In terms of containers, this was equivalent to 2.1 million TEU in combined road/rail transport and maritime hinterland transport. Compared with the previous year, around 100,000 additional trucks were shifted onto rail.

"The climate targets are achievable," said Michail Stahlhut, CEO of Hupac. "Compared to road transport alone, we have saved the environment 1.5 million tonnes of CO2 and reduced energy consumption by 17 billion megajoules – in addition to relieving the roads of the transport of 21 million tonnes of goods. We do our part by providing a reliable service and managing the network in an efficient, eco-friendly way."

All transport segments contributed to the positive development in 2021 to a comparable extent. Transalpine traffic grew by 11.8 percent, which was due in particular to the successful use of the 4m corridor via Gotthard. In non-transalpine traffic (+10.4 percent), the Southeast and Southwest Europe segments developed dynamically.

In maritime container transport, ERS Railways, a Hupac Group company, made up for the pandemic-related traffic losses of the previous year and generated satisfactory volume growth despite the continuing volatilities.

Stahlhut added: "The support measures in various countries helped us to maintain our network during the pandemic and thus secure supplies."

Transalpine traffic grew by 11.8 percent, which was due in particular to the successful use of the 4m corridor via Gotthard

More modal shift

The positive traffic development is not only due to the economic recovery in the past year, but also to the growing interest of logistics in competitive, climate-friendly transport solutions by rail, Hupac added.

"With reliable services, we can meet the expectations of the industry and shift further significant volumes to rail," said Stahlhut. "The prerequisite is stable quality. This requires better management of construction works today and in the coming years and decades, especially on the Rhine-Alpine corridor. Disruptions and inefficiencies like those in the second half of 2021 must not happen again."

Keywords for a sustainable improvement in quality are the organisation of weekend resets to stabilise the traffic situation, the improvement of construction site co-ordination between infrastructure managers and efficient traffic management with a noticeable reduction in disruption times.

The establishment of international bypasses, such as the upgrading of an alternative route on the left bank of the Rhine between Karlsruhe and Basel, is crucial for the coming years, the transport operator asserted.

"The additional capacity we need for reliable traffic management on the feeder routes to the Swiss base tunnels can be created in the short term with relatively little funding," explained Hans-Jörg Bertschi, chairman of Hupac. "The expansion of the north-south axis on the Rhine left bank is an important prerequisite for the full utilisation of AlpTransit and for the further shift of transalpine freight traffic."

Energy crisis

A further challenge for combined transport is the explosion in energy costs. In various European countries, the costs for traction power have doubled or even tripled. The result has been price increases that cannot be compensated for and are putting a noticeable strain on the marketability of combined transport.

"The energy costs in rail freight transport should be evaluated in macro-economic terms," demanded Michail Stahlhut. "We can only achieve the Green Deal targets with competitive prices. A subsidy for electricity transmission costs, ie, the price component for rail power facilities, overhead lines, etc, would mitigate the current situation and send an important signal to the market."

Strategy 2021-2026

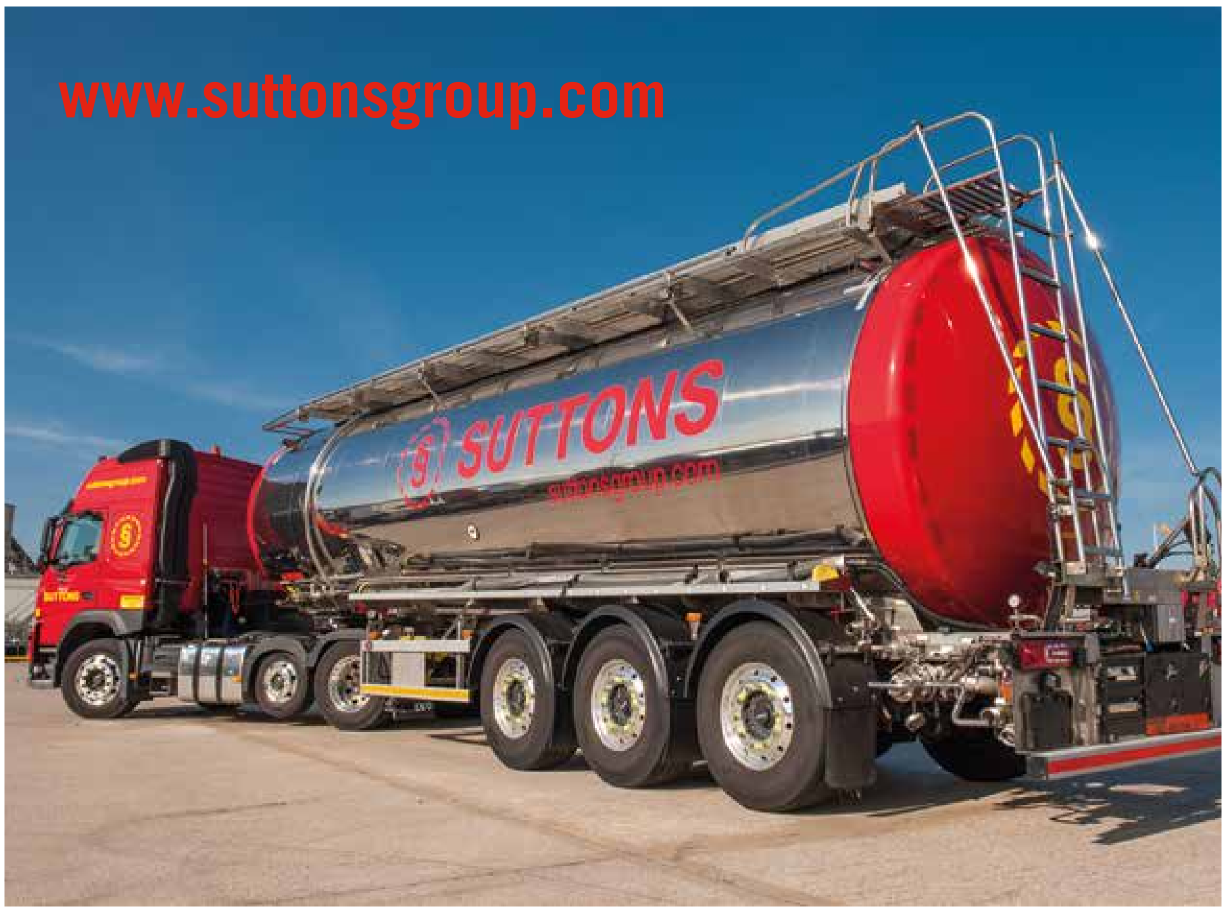
For the coming years, Hupac expects significant interest in combined transport as a contribution to achieving the net zero climate target. "With our Strategy 2021-2026, we are setting the course for growth that meets the Green Deal expectations," said Hans-Jörg Bertschi. "With an annual volume growth of 7 percent, we are aiming for a volume of 1.5 million road consignments by 2026."

In the coming years, Hupac will strengthen its offer in the core market of transalpine transport through Switzerland and work for productivity improvements to compensate for the reduction in subsidies. Other key development areas are southern Italy, Spain, eastern and south-eastern Europe. The investment programme for the next five years provides for CHF300 million for terminals, rolling stock and IT systems.

www.hupac.com

Traffic development Number of road consignments	2021	2020	%
Transalpine via Switzerland	601,390	538,104	11.8
Transalpine via Austria and France	42,991	42,549	1.0
Non-transalpine	479,181	434,033	10.4
Total	**1,123,562**	**1,014,686**	**10.7**

How Suttons Tankers uses strategically located depot network to bring bespoke solutions to its customers



Having a continuous supply of feedstock is vital to many of our customers' operational needs. A break in supply can have negative repercussions that can be costly to resolve.

Thanks to our large UK depot network, road fleet, expert planning teams, and flexible driver workforce, we have the resources in place to allow us to arrange our customers' deliveries over distances and in timeframes that could otherwise be difficult.

Customer Haltermann Carless secured an ongoing supply of feedstock from Barrow-in-Furness that required daily delivery to their site in Harwich. Our expert solution design team proposed to utilise our strong depot network to establish a trunking operation for this supply. While there were a number of depots in our network available for trunking, the optimal solution was to use our Willenhall depot as a base for this contract.

By taking advantage of our strategically located depot network and flexible driver workforce, we pick the feedstock up every morning and trunk it to our depot in Willenhall. A night driver then collects the feedstock and delivers it to the Haltermann Carless site in Harwich.

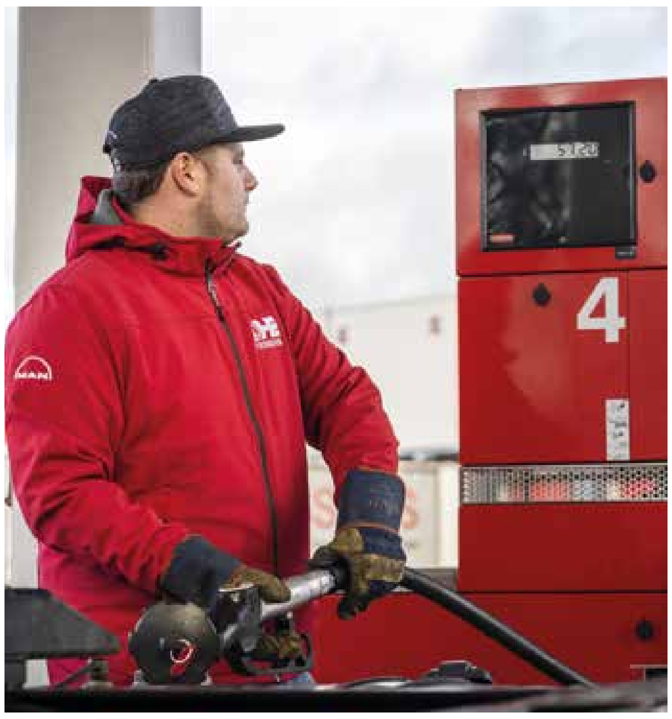
In addition, we also offer Haltermann Carless the ability to redeploy resources during periods of reduced supply onto other Haltermann Carless contracts, thanks to other operations based at Willenhall mitigating the fixed cost base.

By combining an expertly planned bespoke solution with our strategically located depot network we are able to provide Haltermann Carless with a reliable and flexible service which contributes to the smooth running of their operation.

We complete a round trip of over 700 miles every day with only one truck and trailer being required for each delivery. This delivers significant savings to our customer and ensures that Haltermann Carless' feedstock supply remains consistent, so they can focus on their operation.

At Suttons Tankers we continue to bring safe, reliable, and cost-effective logistics solutions to customers across the UK and are proud of our strategically located depot network, flexible driver workforce and proven track record in the industry.

Essers opts for insetting over offsetting



HVO is a so-called drop-in product that can be used for almost any modern truck without any engine modifications

Belgian logistics group H.Essers is launching a CO2 compensation transport concept.

The 'HVO insetting' concept allows companies to reduce the carbon footprint of their transport directly. There is no external compensation, but due to the use of HVO (hydrotreated vegetable oil), an eco-friendly biodiesel made from waste products, emissions are almost completely eliminated.

"An increasing number of companies want to make their supply chain more climate-friendly and have set themselves the goal of reducing CO2 emissions from their transports by a certain percentage," said Yannick Dylst, project manager sustainability at H. Essers.

"With offsetting, they pay a surcharge to compensate for those emissions by planting trees, investing in windmills and so on. 'Insetting', on the other hand, reduces the emissions of the transports themselves, using a brand new method of internal compensation."

The basis of the insetting concept is the use of HVO, a second generation biodiesel. It is made from waste products and fats from the food industry (not from food crops such as rapeseed or palm oil). It is the most sustainable diesel fuel on the market today, emitting up to 90 percent less CO2, 30 percent fewer particulates and 9 percent less nitrogen oxide (NOx) compared with regular diesel. HVO is a so-called drop-in product: it can be used as a fuel for almost any modern truck without any engine modifications.

However, HVO is still only available to a limited extent in public filling stations in Europe. So, H.Essers developed the insetting concept. HVO is available at its own filling station in Tessenderlo, but not necessarily for the customer's own transports. For each transport order, the amount of diesel consumed is transparently calculated. That volume can then be compensated internally with transports where HVO is used. With this system, return journeys of customers that do not participate in the insetting programme can also be taken into account. Thanks to the so-called 'mass balancing' principle, the transports of the insetting customer are decarbonised by direct allocation of HVO transports in the own H.Essers network. This is what makes the concept unique, the company says.

"The customer can decide whether it wants to decarbonise 25 percent, 50 percent, 75 percent or 100 percent used for of the diesel consumption of its transports. This percentage can also be varied for each individual route," explains Dylst.

The reduction in CO2 emissions is calculated according to the GLEC methodology of the Global Logistics Emission Council. H.Essers reports the amount of HVO used and both the 'well to wheel' and 'tank to wheel' reduction in CO2 emissions to customers each quarter.

In order to ensure full transparency, Deloitte conducts an annual assurance audit. Both the set-up and processes at H.Essers and the contractual agreements with the customer are subject to this external control.

Initially, H.Essers is launching the insetting concept for transport with full trucks (FTL) and dedicated transports. "In addition, this concept offers an excellent opportunity to compensate for unavoidable pre- and post-transports in intermodal transport. For the time being, groupage and partial loads remain outside the programme because manual allocation is still too complex and labour-intensive," said Dylst.

www.essers.com

Abbey wins Premier flour contract

Abbey Logistics has been awarded a new contract to transport all bulk flour produced at Premier Food's mill in Andover to its bakeries throughout the UK.

The new contract which commenced in early January adds to Abbey's growing list of bulk flour customers and will see the logistics specialist loading flour at Andover and providing nationwide transport using its fleet of food grade bulk powder road tankers.

Premier Foods owns some of the UK's most recognisable brands and is one of Britain's biggest listed food companies.

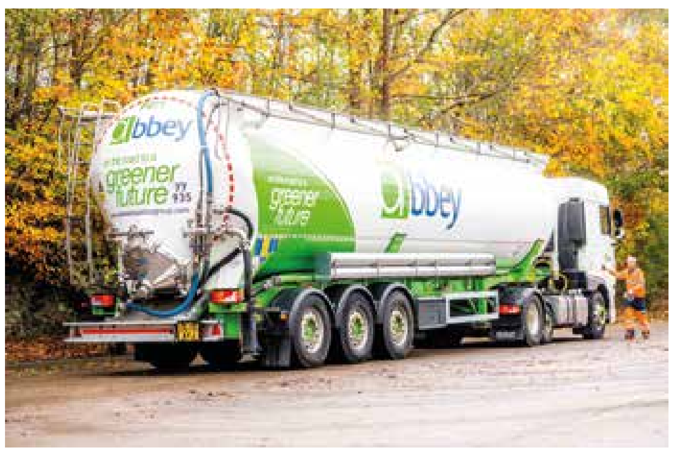
Operating primarily in the ambient food sector which continues to be the largest sector within the total UK grocery market, Premier's portfolio of brands includes flavourings & seasonings, cooking sauces & accompaniments, quick meals, snacks and soups, sweet treats and ambient desserts.

Paul Thompson, operations director, Premier Foods said: "Flour is a key ingredient in many of our products and we needed to partner with a logistics company with knowledge and expertise of flour transport and the ability to provide a flexible resource to accurately manage the volume of flour at our sites.

"Abbey's experience in food grade logistics and track record of working alongside customers to identify opportunities that add value and increase the security of the supply chain was a perfect fit for us, and we are delighted to be working with them."

Mike Ellis, Abbey's business development director added: "Flour transport has some very specific requirements that calls for a haulier that truly understands the product and its unique characteristics. This new contract demonstrates our ability to support one of the UK's largest food manufacturers."

www.abbeylogisticsgroup.com



Packaging to make a difference

LC Packaging has been busy of late with numerous sustainability initiatives

The past few months have seen a flurry of activity by LC Packaging to reinforce its commitment to sustainability.

The Netherlands-headquartered packaging group has raised its ambition to reduce emissions from its value chain in line with a 1.5degC pathway.

This is in line with its public commitment to set a science-based target aligned with criteria defined by the Science Based Targets initiative (SBTi), a partnership between CDP, the United Nations Global Compact, World Resource Institute (WRI) and the World Wide Fund for Nature (WWF).

The targets will cover LC Packaging's full operations and include all sales offices and warehouses and its FIBC manufacturing sites in Bangladesh and South Africa. The company expects to submit its target(s) for validation no later than the second quarter of 2022.

The latest IPCC report has made clear that, to avoid the most significant effects of climate breakdown, the world must halve greenhouse gas emissions by 2030, achieve net-zero emissions by 2050 and halt global temperature rises to 1.5degC.

Lucas Lammers, LC Packaging's CEO, said: "Every country, company and individual must play its part. At LC Packaging we take our climate responsibility seriously. By setting science-based reduction targets, we can be sure our efforts are credible and ambitious enough the make a change. Not just for ourselves, but for the health and safety of future generations."

So far more than 1,100 companies worldwide have made commitments in line with the SBTi's 1.5degC Business Ambition.

LC Packaging has raised its ambition to reduce emissions from its value chain in line with a 1.5degC pathway

Plastic Pact

In addition, LC Packaging has joined the Plastic Pact Netherlands, thereby committing to help accelerate the transition to a Circular Economy so as to do more with less plastic.

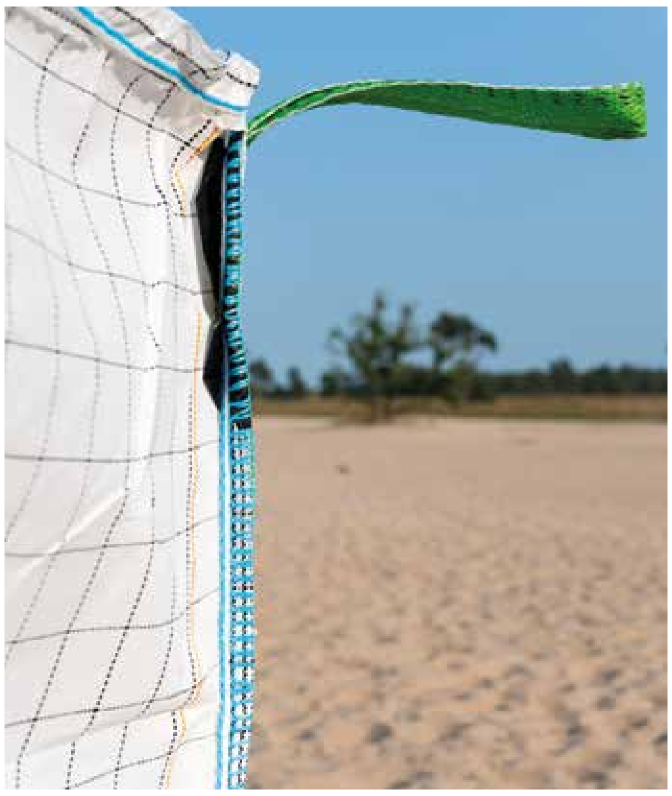
In concrete terms, the company has set a number of targets to reach by 2025, such as ensuring all plastic products and packaging will be reusable where possible and appropriate, and in any case, 100 percent recyclable.

It will also using 20 percent less plastic compared to the reference year 2017, by avoiding unnecessary use, increased reuse, and alternatively, sustainable materials.

Effective recycling at least 70 percent of all single-use plastic products and packaging disposed of in the Netherlands is another target, as is using the highest possible amount of recycled plastics in all single-use plastic packaging and products, with an average of at least 35 percent per participating plastics-using company.

The use of plastic has grown exponentially over the past 50 years. Plastics are strong and contribute to the safety, durability, and quality of the packaged products. Plastic packaging also often delivers a lower CO2 emission than possible alternatives. However, the large-scale application has severe drawbacks, like the use of mostly fossil fuel based raw materials, the energy and emissions from plastic production, and a lack of collection and recycling.

LC Packaging is joining the Plastic Pact NL both as a statement of its own ambitions to address these challenges but also recognising that to make the Circular Economy work requires collaboration with



LC's reusable FIBC solution won the Nestlé Portugal Sustainability Award for Suppliers

others throughout the value chain.

Last year, LC Packaging's reusable FIBC solution was the winner of the Sustainability Award for Suppliers II Edition by Nestlé Portugal.

The award is an incentive that aims to share Nestlé's sustainability goals and the value of sharing with business partners and society.

With LC Packaging's closed-loop solution, Nestlé's factory in Avanca, Portugal, can reuse its big bags up to five times. By doing so, the amount of plastic waste in its operations has significantly decreased.

Paolo Fagnoni, managing director of Nestlé Portugal, commented: "Our suppliers are an integral part of our value chain and, therefore, we are proud to see the alignment that various companies from different sectors of activity have in favour of protecting the environment and sharing value throughout their chains production."

The reuse project arose in response to a challenge launched by the Avanca factory to develop a reusable version of its FIBCs with liners. The solution found by LC Packaging specialists allowed the change of the big bag design while maintaining production quality.

The change consisted of eliminating the inner lining layer in combination with a new bag emptying system. The end result was a bag that includes a double bottom layer with a special double deflation spout system. With this solution, the bags became fully reusable, and by allowing the FIBCs to be reused five times, Nestlé is contributing to the reduction in water consumption (8.8 litres per bag), energy (5.7kWh per bag) and CO2 emissions (7.4kg per kg of bag).

Future-proof

In South Africa, the company's FIBC production facility LC Shankar has recently moved to a custom-built production and distribution facility in Pietermaritzburg. The new facility has 10,000 sqm under roof and is part of a long-term strategy aimed at further expansion, increased output, and reverse integration. The production facility produces FIBCs for the chemical, mining, resins, agricultural and food sectors.

The new facility allows for raw material storage, production and finished goods warehousing all to take place on one site. LC Shankar has grown significantly over the past five years and needed more space for increased production as well as increased amounts of raw material and finished goods.

The facility holds over 400 tons of raw material (with capacity for another 200 tons), production capacity (cutting, printing, liner insertion and baling) for some 400 tons (current production is around 75,000 bags), and a finished goods warehouse with space for 1,000 pallets that can be doubled when narrow space racking is installed. Two automatic dock levers make unloading of containers quick and efficient while all deliveries and dispatches take place under cover.

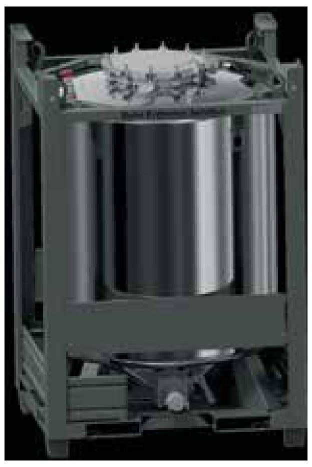
The factory has been designed in an eco-friendly manner with food safe LED lighting installed all round, and natural ventilation in the production areas via a 'whirly bird' system. All toilets are fed with rainwater that is harvested and stored in 20 water storage tanks.

Diesel forklifts have been replaced with electric forklifts designed to operate in narrow spaces to reduce the carbon footprint and maximise storage solutions. An enclosed, climate-controlled printing room was built to ensure consistency of print regardless of extreme temperature fluctuations. A fireproof chemical storage room is nearing completion. Finally, a project to install an 'off grid' solar energy solution is under way.

www.lcpackaging.com

CBA's ammonia solution

Back in 2000, changes to the International Carriage of Dangerous Goods by Road (ADR) regulations meant that the percentage concentration of ammonia solution that could be legally carried in IBCs by road was almost halved.



The CBA/Thielmann IBC allows for deliveries of ammonia in concentrations up to 35 percent

This created a major issue for the chemical supply chain and in order to continue to allow deliveries of a concentration up to 35 percent, a series of multi-lateral agreements (MLAs) were put into effect to ensure that supplies could continue.

Ammonia solution in the higher concentration is used for a number of specialist applications. It is a key chemical component in the recycling of catalytic converters, the approval process for many pharmaceutical products, used in the disposal of military ammunition and, in dealing with slurry in the oil & gas sector.

However, the last MLA expired on 31 January 2022 creating a significant issue to all for the carriage of ammonia solution in territories that continue to remain contracted to the ADR agreement.

The UK Chemical Business Association (CBA) identified this problem several years ago and set out to find a solution. It became clear that an entirely new IBC was required, and contact was made with packing manufacturer Thielmann.

In association with Thielmann and a group of interested member companies, CBA agreed the required specification and, following development and testing of various prototypes, the new IBC received authorisation for use in the UK from the Department for Transport in April 2019.

Since then, further modifications to the initial design have been made to allow for pressure discharge and these were tested and passed during 2021. The first IBCs have already successfully entered service and as the holder of the approval certificates, authorisation to manufacture is required from the CBA.

www.chemical.org.uk

5G technology provides the communications for remote-controlled yard cranes at Felixstowe

5G goes live at Felixstowe

Port of Felixstowe has reached a significant milestone by becoming the largest UK port to deploy 5G technology and the Internet of Things (IoT).

The Hutchison Ports-owned container gateway, along with consortium members, Three UK, Blue Mesh Solutions and the University of Cambridge, was successful in an application for grant funding under the 5G Testbeds and Trials programme run by the UK Department for Digital, Culture, Media and Sport (DCMS). The project aims to prove 5G's capabilities in a busy port environment.

The project seeks to deliver on two use cases: predictive maintenance of quay cranes using Internet of Things (IoT) sensors and providing communications for remote control yard cranes.

Digital Infrastructure Minister Julia Lopez said: "It's incredible to see our £200 million investment in innovative 5G tech is empowering Britain's biggest and busiest container port to explore new ways of driving efficiency, improving safety and supporting the UK's post-Brexit status as a global trading nation.

"5G has huge potential to revolutionise a wide range of UK industries and 5G Ports is just one testbed the government is funding to help achieve this."

Karen Poulter, head of information services, Port of Felixstowe, and 5G Project Lead, commented: "As part of the 5G project, six quay cranes are being fitted with IoT Sensors to understand the stresses and strains placed on them by day-to-day operation. Using 5G to transmit the data enables these systems to operate in real-time which could enable 'in the moment' safety-critical applications.

"Using the data generated by the IoT sensors and linking it to the actual activity on the crane together with previous maintenance records, Cambridge University is developing an algorithm to predict equipment failure and suggest the optimum time to maintain the equipment."

The availability of equipment is integral to port operations. Routine maintenance is an absolute necessity but can restrict equipment availability. The algorithm will maximise the amount of time cranes are in use and will reduce the cost associated with emergency repairs and day-to-day maintenance.

The 5G network can handle the huge volume of data collected which will be used to train the algorithm at levels that wouldn't be sustainable over 4G.

Prof Ajith Parlikad, professor of asset management at the University of Cambridge, added: "We will harness the speed, low-latency and high-capacity of 5G to send the high volumes of data generated by the IoT sensors for an artificial intelligence-based predictive maintenance system. This system will be able to detect anomalies in the cranes and alert the operators so that preventive maintenance can be targeted at these areas before the failure actually happens."

"The Port of Felixstowe already operates remote control quay cranes and yard cranes," said Steve Wylie, head of corporate sales at Three UK. "Traditional methods of communicating to CCTV needed for remote control have limitations on bandwidth and flexibility for extension across the port. 5G and its unique low latency and high throughput capabilities make it the optimum technology to power remote control and support the port's long term growth objectives."

Richard Brooks, managing director at Blue Mesh Solutions, explained: "5G allows IoT systems to operate in a denser and more data rich environment. Combining modern sensors with IoT technology to manage data backhaul allows data to be used in new ways, such as combining the sensors with artificial intelligence algorithms to search for inferences in data that are hidden from standard analysis methods. Building these 'digital twins' is the future of computer and engineering science, and 5G is an enabling technology."

The project is due to complete in September 2022. Significant work has already been undertaken at the Three lab to test the 5G network against these use cases. Increasing traffic will now utilise the network and prove its capabilities to simultaneously manage the two use-cases and to support the business- critical activities of the port.

www.portoffelixstowe.co.uk

Swimming Winning

UM Terminals' quality planning & performance manager Jo Winning has successfully completed a charity swim challenge and raised vital money to support people affected by spinal cord injuries.

Between October and December last year, she took part in the Channel Swim Challenge – the aim being to swim the length of the English Channel (22 miles) in 12 weeks.

Jo, a keen swimmer who is based at UM Terminals' Liverpool head office, completed the challenge at her local pool in Shrewsbury in just over eight weeks, raising £1,150 in donations from family, friends and the UM Group charity committee with W&R Barnett – UM Terminals' holding company – contributing a further £650.

Aspire ensures that everyone with a spinal cord injury has the opportunity to live an independent and fulfilled life.

The charity receives no statutory funding, so every penny raised through the Aspire Channel Swim helps with its important work. One person every four hours is paralysed by a spinal cord injury.

Jo said: "The Aspire Charity is a brilliant organisation and the fundraising it receives from events such as the Channel Swim Challenge are vital in supporting the work it is able to do with people affected by spinal cord injuries."

Jo Winning after completing her charity swimming challenge

www.umterminals.co.uk

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Published 6 times a year.

ISSN 1462-0731

Events

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The following event dates were correct at time to going to press

GPCA Supply Chain Conference
17-19 May 2022
Dubai, UAE
www.gpca.org.ae

Multimodal 2022
14-16 June 2022
Birmingham, UK
www.multimodal.org.uk

transport logistic China
15-17 June 2022
Shanghai, China
www.transportlogistic-china.com

PBLA Global Alliance Meeting
20–22 September
Madrid, Spain
https://pbla.pcaevent.com

EPCA annual meeting
4-6 October 2022
Berlin Germany
https://epca.eu

Intermodal Europe
8-10 November 2022
Amsterdam, Netherlands
www.intermodal-events.com

World Bulk Wine
21-22 November 2022
Amsterdam, Netherlands
www.worldbulkwine.com

Annual GPCA Forum
13-15 December 2022
Riyadh, Saudi Arabia
www.gpca.org.ae

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© Ashley & Dumville Ltd
Bulk Distributor is published by A&D Publishing
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www.bulk-distributor.com

UK PM opens Tilbury2

UK Prime Minister Boris Johnson officially opened the Tilbury2 terminal, at Port of Tilbury, near London.

Visiting the Thames-based port, the Prime Minister was given a tour of the country's largest freight ferry terminal, the site of what will become Britain's biggest construction processing terminal and new border infrastructure, alongside meeting the port's key workers, apprentices and customers like P&O Ferries and Tarmac.

On the second anniversary of the UK leaving the EU, the Prime Minister was given an overview of the technology-backed systems that streamline clearing the border, such as number plate recognition, and the 12-bay Border Control Post, which will house government agencies making physical checks.

Built and operational during the height of the pandemic, the port terminal handles containers and trailers with exports and imported goods, including food, drink and medical supplies to and from continental Europe on P&O Ferries' Tilbury-Zeebrugge route. The site also handles Tesco's new refrigerated train service to Scotland's premier freight hub at Port of Grangemouth.

Tilbury2 is a £250 million investment by Forth Ports Group on a former power station site spanning 160 acres. When fully operational in April, Tarmac's construction materials terminal (CMAT) will use a bespoke 2km long aggregates conveyor system and a railhead capable of taking the longest freight trains at 775m, meaning construction materials can be delivered efficiently from vessel to the terminal for processing before moving onto building projects and public infrastructure schemes like HS2 without the use of heavy road haulage.

The Prime Minister commented: "It was an honour to open Tilbury2, the UK's newest port, and meet with key workers and apprentices on site. Freeports are driving trade, investment and jobs right across the country and helping to capitalise on our newfound Brexit freedoms.

"It is hugely welcome to see Port of Tilbury going from strength to strength, benefiting not only businesses and workers but also the wider Thames Gateway region".

Charles Hammond, chief executive of Forth Ports, added: "Tilbury2 is a national success story. British financed and British built for a rapidly growing British company and delivered during the height of the pandemic.

"The burgeoning logistics cluster at Tilbury has been boosted by Thames Freeport status and is primed to be part of global Britain's future as we look to drive forward sustainable growth, with manufacturing, next generation logistics and clean energy generation at its heart."

www.tilbury2.co.uk

Tilbury2 is a £250 million investment by Forth Ports Group on a former power station site

VARO, GPS complete Amsterdam biofuels site

VARO Energy Group and GPS Group have announced the successful completion of a new railway line and ethanol storage tanks, which began operation on 1 February.

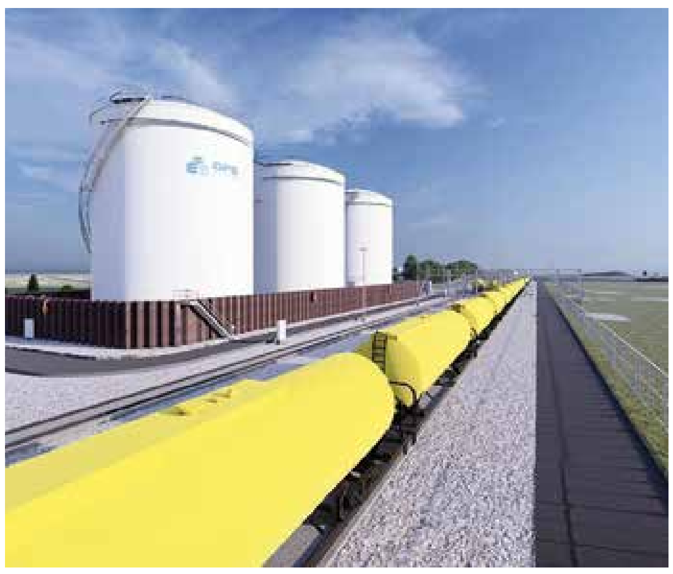
Located in Port of Amsterdam, the world's largest trading and blending hub for fuels, the new infrastructure is one of very few rail facilities that enable the movement of traditional fuels and bio products in the ARA-region. The new railway line and ethanol storage tanks connect to 20 Class 1 tanks in the port.

Dev Sanyal, CEO of VARO Energy said: "A modern and flexible infrastructure is a key ingredient for the energy transition. We are delighted that through the strategic collaboration with our long-term partner GPS Group, we have re-purposed existing assets and built new infrastructure. Biofuels will continue to play an important role in the energy mix and as a pioneer in biofuels and as one of the largest providers of biofuels in the ARA-region, this new rail system and new capacity to store ethanol in Port of Amsterdam are crucial to increase our capability to blend and deliver products safely across Europe."

Eric Arnold, CEO of GPS, added: "The completion of the new railway line and storage tanks marks another important milestone in the relationship between VARO and GPS. We're thrilled that together we have been able to improve the energy infrastructure at the Port of Amsterdam."

The expansion of the existing infrastructure follows the commissioning of 134,000 cbm of class 1 storage for VARO in December 2019. It also supports growing production needs to biofuels.

www.varoenergy.com



Artist's render of the Varo, GPS Amsterdam project