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Tankcontainer MAGAZINE

Cleaning Up

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Fleet growth over the past decade – *winners and losers*

We consider ITCO's latest annual fleet survey and take a 10-year perspective of how the fleets of the tank container operators and lessors have changed over that period. The global fleet has doubled, equivalent to a compound annual growth rate of 7%. Among operators, Stolt Tank Containers, ITT and Bertschi have seen the largest fleet growth in absolute numbers.

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Challenging the market

Fleet growth over the past decade – *winners and losers*

As chemical capacity implodes in Europe - and with well over 40 force majeures across the Middle East and Asia - the tariff-protected US-based chemical sector is keenly anticipating a jump in profitability. Reporting the company's first quarter results, Dow's CEO said: "The margin backdrop began to positively inflect in March following global supply constraints, as impacts from the conflict in the Middle East quickly became widespread. We are already seeing rapid positive momentum from our announced pricing actions in every business and every region, as well as constructive impacts to our operating rates". Of course, this does not extend to its operating rates in the Middle East where its huge, perennially loss-making Sadara joint venture in Jubail, Saudi Arabia was temporarily shut down at the end of March as missiles flew across the Arabian Gulf.

The implications for tank containers of the Middle East conflict are best described as many and varied. So many, and so varied, that we can only generalise here. Higher-for-longer interest rates, elevated energy and stainless steel prices, and raw material supply constraints will all be inflationary. As a minimum, these are feeding through to put upward pressures on tank container prices and per diems.

Chemical supply chains and tank container routes are being re-configured, around and within the Middle East, but tank containers are contributing to overall supply chain resilience by delivering their value as both temporary storage and easily re-routable transport assets. Demurrage revenues from stranded tank containers may be substantial.

With such an ongoing, fluid situation, it is for braver commentators than *Tankcontainer Magazine* to speculate on what the outcome may be.

In this issue, we consider **ITCO's latest annual fleet survey** and take a 10-year perspective of how the fleets of the tank container operators and lessors have changed over that period. The global fleet has doubled, equivalent to a compound annual growth rate of 7%.

Stolt Tank Containers (STC), **Intermodal Tank Transport** (ITT) and **Bertschi** have seen the largest fleet growth in absolute numbers, boosted by the acquisitions of Suttons International and Bulk Tainer Group by STC and ITT respectively. E-WAY is a notable new entrant to the '20,000+' league.

HOYER, Bulkhaul and **Royal Den Hartogh Logistics** have all seen much more modest fleet growth over the past decade. Fleet size isn't everything, of course, not least because over a third of it may not be utilised, but it is a simple and transparent metric from which to start when considering the progress of operators and lessors.

Among lessors, **CS Leasing** has delivered the largest fleet growth of all tank container lessors over the past decade. Founded in 2015 by some of the former leadership team in Cronos, the lessor rapidly went on to become the fifth largest in the world and was acquired on 1 April by **ITE Management** L.P., a leading alternative asset manager focused on industrial transportation and infrastructure. By adding tank containers and dry freight specials to its existing portfolio of rail, chassis, dry container and aviation assets, ITE is targeting an expanded presence across key freight transportation sectors.

The acquisition continues a **sector theme: continued investment in the intermodal sector**, often combining common ownership of leased railcar and tank container assets. Examples include EXSIF/Marmon Rail, Trifleet/GATX, Streem Group - Ermewa/Eurotainer/Raffles Lease, Falcon Lease/Sasser and CS Leasing/ITE.

Raffles Lease and **Peacock Leasing** also saw dramatic growth in the past 10 years, catalysed by acquisition activity. **Seaco** was the only lessor to report a decline in tank container fleet although, now liberated from the dead weight of a bankrupt Chinese owner, an active rejuvenation programme can be expected under its new owner, **Textainer**, owned by US private equity firm Stonepeak.

Elsewhere, we continue our insight into the likely profitability of tank container operators using Porter's well-known 'Five forces' model, which we use to identify the competitive forces shaping the tank container operator sector. Our fourth instalment considers the **Bargaining Power of Suppliers** to the operators i.e. tank container manufacturers, lessors, depots, suppliers of capital, etc.

Overall, we conclude that the bargaining power of tank container manufacturers over tank container operators is low, or weak. There are, however, some important caveats. The conclusion is based on the power balance for the industry's workhorse i.e. standard T11 tank containers. In this segment of the equipment market, tank container manufacturers cannot significantly impact an operator's bottom line by dictating terms, restricting supply and increasing equipment prices. This helps makes the profit margins of tank container operators more resilient.

The power balance changes markedly when operators require special, technically-demanding or bespoke designs of tank containers, and shifts according to the strength of the tank container market.

There is a lot for everyone to consider at the moment - rising prices, elusive volumes, and an exceptional situation to manage in the Middle East but, given time, there will be a strong spring back.

Leslie McCune, *Editor*

Bertschi Group stays on course amid shifting global trade flows and stagnating European chemical markets

Bertschi Group entered 2026 emphasising that customer value creation and targeted investments can continue to support growth even in a stagnating market environment.

The Group closed 2025 with a turnover of CHF 1.02 billion, unchanged compared with 2024 due to the strength of the Swiss franc. In local currencies, however, turnover increased by 2.5 percent, supported by growth in selected global markets and rising demand for storage and distribution solutions across Europe and Asia.

Throughout the year, tariff and regulatory uncertainties remained a key concern for management, repeatedly influencing customer purchasing decisions, procurement timing and cross-border planning. At the same time, the downturn in the European chemical industry continued, with plant closures across the value chain reducing production activity in certain regions. Meanwhile, growing import flows altered traditional supply patterns.

For Bertschi, this environment required not only managing fluctuations in volumes but also anticipating emerging trade shifts and responding with flexible capacity and operational execution.

Jan Arnet, Group CEO of Bertschi, said volatility has become a permanent feature of the logistics sector and that maintaining reliable customer supply chains remains a priority. He noted that the company's integrated service model, combining operational management, compliance expertise and infrastructure, aims to ensure continuity for customers despite increasingly complex market conditions.

Focus on intermodal reliability and sustainability

Sustainability continues to be a central theme across the logistics sector, although operational challenges, particularly rail infrastructure disruptions and reliability issues in Europe, have created obstacles for wider modal shift ambitions.

For 2026, Bertschi plans to focus on improving the consistency of transport planning and execution while further reducing operational risks through resilient transport concepts. The company also supports industry initiatives aimed at strengthening intermodal performance through consolidation and higher-frequency services along key transport corridors.

According to Arnet, customers increasingly expect both lower emissions and reliable delivery schedules. Improving the predictability of intermodal transport therefore remains a key objective for the year ahead.

Preparing for a challenging market environment

Looking ahead, Bertschi expects market conditions in 2026 to remain challenging, with continued overcapacity and cost pressures across the logistics sector. In response, the Group plans to strengthen customer service through proactive communication and solution-oriented planning.

Investment activity will remain selective and focused primarily on infrastructure, equipment and digital capabilities that enhance reliability, scalability and operational efficiency while maintaining the company's high safety standards. ■

Peacock Container announces the appointment of Jurjen Stoorvogel as global operations director

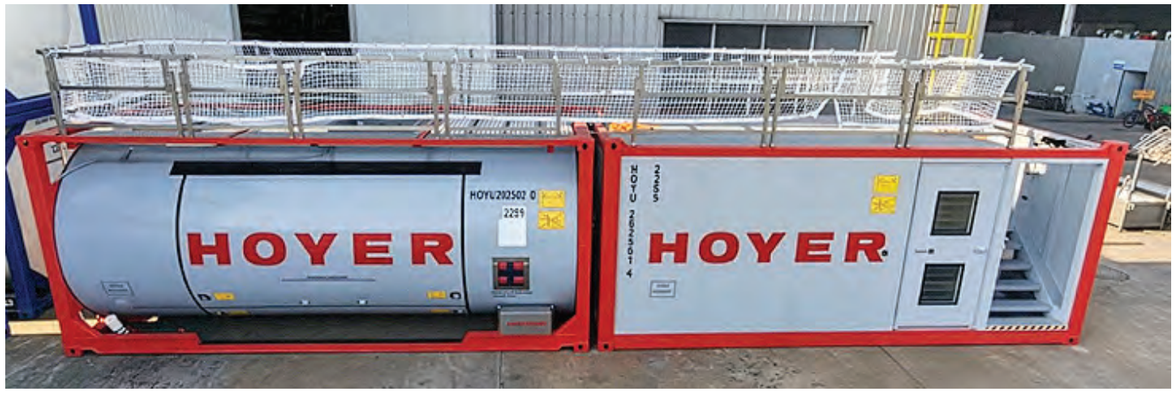
Peacock Container has announced the appointment of Mr. Jurjen Stoorvogel as global operations director. Based in Rotterdam, he will oversee all operational activities and guide the further development of Peacock Container's operational excellence in the coming years.

Stoorvogel brings more than 14 years of international experience in logistics, shipping, and chemical distribution. He spent over 10 years at Evergreen Line, where he served as manager overseeing key operational processes within one of the world's leading shipping lines. Following his tenure at Evergreen, he joined KH Chemicals as customer service and logistics director, where he led global operational teams and was responsible for the worldwide procurement of logistics services.

Jesse Vermijden, CEO of Peacock Container, expressed his enthusiasm about the appointment, stating that Stoorvogel's extensive operational background across both shipping and chemical logistics would prove invaluable as Peacock Container continues to grow and strengthen its global network.

Stoorvogel noted his excitement about joining the Peacock Container team, expressing his eagerness to collaborate with the team and its customers and partners globally. He indicated that he looks forward to contributing to the further development of Peacock's operations and supporting the company's ambitious growth plans. ■

HOYER develops additional training container concept for the U.S. market



Following the successful implementation of the European training concept, HOYER is now expanding its training offering to the North American market. A training container unit developed specifically for the United States has been completed and is currently on its way to the country.

The European training concept - consisting of a modified tank container and its corresponding chassis - has proven to be an effective tool for knowledge transfer since its introduction. The idea originated in 2013, when HOYER set out to present technical aspects of tank containers in a more vivid and practical way for employees, customers, and users. Since then, the concept has become an integral part of training programs, including those for public institutions such as fire departments and police forces, as well as customer events and trade fairs.

Since the launch of the first HOYER training container, this educational concept has set standards throughout Europe. What originally began as a practical solution - using individual components to clearly explain application errors and typical misuse - has evolved into a completely new, mobile training approach and was honored with the Dangerous Goods Award in 2017. The training container enables realistic and safe demonstrations of technical processes, and clearly illustrates complex procedures. With great success: from industrial companies to emergency services, authorities, and military organizations, a wide variety of institutions across Europe rely on HOYER's training modules. Over the years, the concept has become a core element of safety and quality training.

"With the new training units for the United States, we consistently continue our international training activities. Our goal is to make our technical expertise available wherever our customers and employees need it. The concept supports them in handling tank containers even more safely and efficiently," says Björn Schniederkötter, Chief Executive Officer of the HOYER Group.

For use in the United States, however, HOYER intentionally did not aim to simply replicate the European equipment. Due to significantly different regulatory and technical requirements in the U.S. market, the company opted for a complete redesign. The experience gained from European operations - especially the expertise of long-standing employees - played a key role in shaping the new concept.

"A direct transfer of the European equipment to the U.S. market would not have been technically or regulatorily viable. That's why we developed an independent training concept that meets U.S.-specific requirements while also reflecting the multimodal application possibilities of our tank containers," explains Niels Merettig, Senior Manager Engineering Equipment of the HOYER Group.

The result is a unique training setup tailored to the needs of the U.S. market:

- A specially engineered tank container, primarily serving as a demonstration object
- An additional purpose built box container, designed exclusively for training use

Together, these two elements form a training module that is unique in its design.

"The initial feedback from our customers and partners in the U.S. confirms that we are on the right track with this new training approach. The show container and the training box are important building blocks to expand our service and training offering in North America and to provide a comprehensive training concept with standardized modules in the future," says Christian Berlin, Group Executive Director Operations of the HOYER Group.

HOYER has been firmly established in the North American market for many years, and the new training container further expands its local training and service offerings. It complements the existing operational network and serves as the foundation for the further development of a training program specifically tailored to the U.S. market. This strengthens HOYER's long-term support for its U.S. customers and service partners. ■

Stolt Tank Containers retains EcoVadis gold rating, ranking it in the top two percent of the industry.

Stolt-Nielsen and the J M Baxi Group have marked a significant milestone in their long-standing partnership, building on over 55 years of collaboration in India.

Hans Augusteijn, president of Stolt Tank Containers and Stolt-Nielsen's executive sponsor for India, and Dhruv Kotak, CEO of J M Baxi Marine Services, have signed a Memorandum of Understanding to expand Stolt-Nielsen's liquid logistics footprint across the Indian Subcontinent.

The MoU will enable both companies to unlock new opportunities across the land-based liquid logistics supply chain, extending their reach to new locations and offering customers a broader range of services.

By combining J M Baxi's deep local presence and expertise with Stolt-Nielsen's global capabilities, the two companies are well positioned to support their customers' continued growth in this important market, delivering safe, reliable, and efficient logistics solutions. ■

Stolt-Nielsen

Eurotainer announces appointment of Elise LEE general manager Asia Pacific

Eurotainer has announced the appointment of Elise Lee as general manager, Asia Pacific, effective February 2026. This strategic appointment marks a new stage in the company's development in the Asia Pacific market, a key sector for the container leasing industry. Based in the Singapore office, Lee will report directly to senior management and play a central role in implementing Eurotainer's regional strategy.

Extensive Container Leasing Expertise

Elise Lee brings to Eurotainer 17 years of in-depth experience in the container leasing sector, covering key areas including:

- Asset management
- Procurement management
- Commercial activities
- Risk management

Prior to joining Eurotainer, she served as vice president of product marketing at Seaco, where she was responsible for managing the dry freight and specials portfolios.

She previously served as director of product marketing for four years, overseeing Seaco's Tank and Reefer fleets, actively contributing to the strategic and financial optimisation of assets throughout their lifecycle.

Regional Market Knowledge

Between 2013 and 2017, Elise Lee also held the position of Marketing Manager for Southeast Asia, where she managed strategic accounts, including several of the world's 10 largest shipowners. This experience has given her an excellent understanding of the commercial and operational challenges of the regional market.

Strategic Leadership

Recognised for her strategic leadership, Elise Lee champions a collaborative team culture based on respect, trust and shared beliefs. Her people-orientated and structured approach is a major asset in supporting Eurotainer as it faces future challenges in the sector.

Eurotainer Welcomes New Collaboration

Eurotainer expressed its enthusiasm in welcoming Elise Lee to the team and confidence that her expertise will actively contribute to the success and growth of the company in Asia-Pacific. ■

Edward Sagar Fort OBE LLD (Hon)

Entrepreneur who grew a company from the back streets of Colne to become a market world leader

Ted Fort, who died recently at the age of 88, started a company in 1967 that went on to become the world leader in the supply of valves and ancillary equipment for road, rail, helicopter refuelling and container tanks.

Fort established Fort Vale Engineering Limited in Colne, Lancashire, following the purchase of two production machines at a sale of surplus equipment from the Ministry of Defence. The two machines were perfect for the production of Fort's new design of valve for the fuel oil delivery industry which went on to become an industry standard. By combining his design skills with keen business acumen, he quickly identified emerging markets and produced quality products to fill the demand. The ISO tank container market was one such and provided a major leap forward in the growth of the company. The Fort Vale Group now employs around 500 people worldwide, has offices and depots in six countries and a manufacturing centre in China as well as in the UK.

Edward Sagar Fort was born in 1937 in Colne, a typical cotton-weaving town in North East Lancashire. He lived in the family farmhouse with no electricity or sewerage for many years and, at the age of ten, raised hens to sell the eggs for pocket money.

Fort struggled at school, failing the eleven-plus examination and attending Park Secondary Modern School in Colne. His prospect for a decent career looked bleak until his mother managed to get him an apprenticeship at Rolls Royce, Barnoldswick. It was a turning point. Fort relished the environment and went on to gain HNC and HND certification at Burnley College. His work at Rolls included design and production operations on cooling ducts in the turbine blades of jet engines – an area of development that gave jet engines 50% more power and a fundamental progression to the modern jet power plants.

Fort left Rolls Royce for Lucas Aerospace, Burnley, in 1960 at the age of 22, working on combustion chambers with airflow testing rigs, which proved to be invaluable experience later in his career.

Sailing had become a favourite sport with which he continued for the rest of his life. Fort started racing a Firefly dinghy at Burwain Sailing Club in Foulridge, where he made many friends. It was a sailing friend, Tony Clegg, that he joined as Deputy Chief Engineer at Drum Engineering, Bradford. At Drum he was introduced to the road transport industry and became involved with pumps and flow control valves for domestic fuel oil delivery tankers.

A visit to a Ministry of Defence surplus manufacturing equipment sale saw Fort put in derisory offers for a few machines. To his horror, he received a letter accepting the offer for two machines and an invoice for £550.0s.0d. He then started a business on his own and with help from his father, obtained a small machine shop in Colne in 1967. Using his contacts obtained at Drum, he took on the challenge of a new valve design for a customer, which proved to be a huge success and the first 'industry standard' of many subsequent designs of his.

The company grew and, in 1974, moved to much larger premises in Nelson. The first export order had come in 1971 obtained on a trip to Ireland for the Firefly National Championships – the value, £10. As the tank container market was international, exports grew quickly and the first of four Queen's Awards for Export Achievement (later, International Trade) was obtained in 1981. A King's Award for Enterprise, International Trade, was gained in 2024.

In 1987 Fort was awarded with an OBE for contributions to business and exports and in 2018 an honorary degree from Lancaster University in recognition of his philanthropy and campaigning on the perils of climate change. The growth of the Fort Vale Group included the acquisition and disposal of several businesses, most notably, current holdings of Francis Searchlights, Bolton, and Riggs Autopack, food industry equipment manufacturers in Nelson. Fort Vale sales offices and depots were established in America, the Netherlands, Singapore, Australia and China.

In 2008, the company acquired the site of the Philips television manufacturing plant in Simonstone, Burnley, and built new offices with extended shop floor space. The site continues to be developed with investment in advanced manufacturing plant and design facilities.

Fort never forgot how important his apprenticeship at Rolls Royce had been and implemented an apprenticeship scheme at Fort Vale, which continues. He had great regard for his company workforce. 2018 saw the opening of a new on-site sports centre for employees.

He set up two charitable foundations, one aiming to help youth in North West England and the other, set up with his partner of 25 years, the late Susan Friedlander, helping charitable causes in and around Beaulieu where they had settled. In 2020 he commissioned and constructed the Fort Climate Centre in Beaulieu with a view to promoting awareness and networking with educational establishments, community groups and businesses. The centre was officially opened in 2023 by HRH the Duchess of Sussex.

Fort Vale's Global Sales and Marketing Director, Graham Blanchard, added this tribute: 'Ted Fort designed the relief valves and bottom discharge valves that we all know today. They say imitation is the best form of flattery and in the world of tank container equipment, Ted Fort was the trailblazer who everyone wanted to follow, and still follow to this day.'

He is survived by two daughters and two grandchildren.

Edward Sagar Fort OBE LLD (Hon) – born 20th March 1937, died 7th March 2026.

Schenk strengthens position in DACH region with the acquisition of Franz Fischer

Spedition GmbH Papendrecht, 9 March 2026 – Schenk Tanktransport, one of North West Europe's leading tank transport companies, has acquired Franz Fischer Spedition GmbH, a renowned German tank transport specialist. The strategic acquisition expands Schenk's European footprint and further strengthens its service offering in chemical logistics.

Following the acquisition, Schenk will generate a turnover of approx. €500 million and employ more than 2,900 people. The combined fleet will comprise over 1,500 trucks, 1,750 owned trailers and 1,000 tank containers.

The acquisition significantly reinforces Schenk's market position in chemical tank transport in the DACH region and aligns with the company's strategy to grow in core markets and specialised product segments. Franz Fischer Spedition GmbH is a family owned company with more than 75 years of experience and a strong reputation in chemical tank transport in Germany and beyond. Its focus on safety, quality and operational excellence closely matches Schenk's core values. Franz Fischer Spedition GmbH specialises in the transport of liquid and dry bulk chemicals across continental Europe and the United Kingdom, serving leading customers. Its strong regional presence and established European network provide a solid platform for further growth within the Schenk Group, while ensuring continuity for existing customers.

Smooth transition The company will remain under the leadership of the current management team, headed by Managing Director Franz Fischer. This ensures a smooth transition and uninterrupted service for customers.

"We are proud to welcome the team of Franz Fischer Spedition to the Schenk Group," said Marcel Claessen, CEO of Schenk Tanktransport. "This acquisition strengthens our position in chemical road transport in the DACH region and enables us to combine our strengths and expertise. We have full confidence in Franz Fischer and his current management team and look forward to working closely together to ensure continuity, build on the company's strong foundation and further strengthen our services across Europe and the UK. Together, we are well positioned to drive sustainable growth and innovation."

"Joining the Schenk Group marks an important next chapter for our company," said Franz Fischer, Managing Director and owner of Franz Fischer Spedition. "Schenk shares our values, our focus on safety and quality, and our long-term view of the business. This partnership provides continuity for our employees and customers, while creating new opportunities for growth and development. I very much look forward to working closely with Marcel and the Schenk team to build on our strong foundation and further strengthen our position together." ■

Streem Group acquires VTG Tank Container Fleet

Streem Group has announced the acquisition of VTG's tank container fleet, effective 1st February 2026, marking a significant milestone in the company's global expansion strategy.

Following the takeover, the fleet will be operated under Streem Group's established brands, Eurotainer and Raffles Lease. The integration of the assets has been completed seamlessly, with all newly acquired tanks fully incorporated into existing operations to ensure uninterrupted service for customers worldwide.

This strategic acquisition further strengthens Streem Group's leading position in the global tank container leasing market. By expanding its fleet and operational capabilities, the Group reinforces its commitment to supporting customer growth, enhancing operational resilience, and investing in a robust and sustainable fleet for the future.
The successful completion of the transaction reflects the dedication and collaboration of the teams and partners involved, whose efforts were instrumental in achieving this important milestone. ■

DEPOTS

Cleaning Up

In a wide-ranging **interview** with **G.H. (Henk) Klein** and **Joost Kasbergen** - the co-owners and Managing Directors of **Gröninger Cleaning Systems** - *Tankcontainer Magazine* hears of the **market dynamics** and **changing customer preferences** for **advance clearing solutions** as **depot owners** look to **reduce** total operating **costs** and **environmental impact** without compromising cleaning quality.

TCM: What is the company and ownership background of Gröninger Cleaning Systems?

GCS: Gröninger Cleaning Systems [GCS] is a privately owned Dutch engineering company specialised in the design, engineering and delivery of advanced cleaning systems for tank containers, road tankers and IBCs. The company is led by Managing Directors Joost Kasbergen and Henk Klein, with Garth Belue responsible for the company's activities in North America. It has its roots in practical cleaning operations and process engineering, which has shaped its philosophy from the beginning: systems must not only perform technically but also work reliably in demanding day-to-day depot environments. Over the years, Gröninger has evolved into a global supplier with installations across Europe, Asia, the Middle East and North America. The company combines engineering, automation, process integration and service support under one roof, enabling customers to develop cleaning operations that are safe, efficient, scalable and future-proof. The company remains independently owned, which allows it to focus on long-term relationships, technology development and continuity rather than short-term targets. This long-term orientation is particularly important in an industry where customers invest in infrastructure with operational lifetimes measured in decades. We continue to build on our service activities, creating a 'total care' package in response to customer requests across all markets.

TCM: What is the unique selling proposition of Gröninger Cleaning Systems?

GCS: The tank cleaning industry has become increasingly sophisticated over the past decade. Cleaning is no longer viewed as a purely operational necessity; it is now a critical part of product integrity, safety, sustainability and logistics performance. What differentiates Gröninger is the combination of process knowledge, engineering depth and practical operational understanding. We do not simply deliver equipment; we design integrated cleaning solutions around the customer's operational reality. Every depot operates differently. Product portfolios vary, labour availability differs by region, water quality is inconsistent around the world, and energy costs can differ dramatically from one location to another. As a result, successful cleaning systems require more than standard hardware. Our approach focuses on balancing cleaning quality, throughput, automation, operator safety and operating costs. Increasingly, depot operators are looking for systems that are capable of handling broader cargo portfolios while maintaining predictable cleaning quality and turnaround times. Another important differentiator is our international experience. Having worked across many regions and market segments, we understand how local operational realities influence technical choices. A solution that performs perfectly in Northwest Europe may require substantial modifications for the Middle East, Southeast Asia or the US. Finally, customers value long-term cooperation. The most successful projects are typically partnerships where both parties work together over many years to continuously improve operational performance.

TCM: How much of Gröninger Cleaning Systems business is tank containers, compared with road tankers, IBCs, etc?

GCS: Tank containers remain the largest and most specialised segment of our activities, particularly within the chemical sector. However, the boundaries between cleaning technologies for tank containers, road tankers and IBCs are increasingly overlapping. Many depot operators today are looking for flexible facilities capable of handling multiple equipment types while maintaining high cleaning standards and operational efficiency. As a result, integrated cleaning concepts are becoming more common.The broader trend is clear: customers are looking for more standardisation, greater automation and improved process control across all cleaning activities. The industry continues to increase expectations regarding cleaning consistency, traceability, sustainability and turnaround performance with the market is clearly moving toward more sophisticated and better-controlled cleaning operations.

TCM: What are the unique challenges/considerations when installing in the Middle East, Asia and the US?

GCS: Every region presents its own operational and technical realities. In the Middle East, ambient temperatures, water management and utility integration are major considerations. Systems must be designed for reliable operation under extreme climatic conditions while maintaining stable cleaning performance. In Asia, space constraints, labour dynamics and rapidly growing throughput requirements often play a larger role. Customers are frequently looking for highly efficient layouts capable of maximising capacity within relatively compact footprints. In the US, safety standards, local regulations and customer-specific operating philosophies can differ substantially from European approaches. In ➔

addition, many US depots place strong emphasis on high throughput and operational simplicity. Across all regions, localisation is increasingly important. Customers expect systems to be adapted not only to technical requirements, but also to local operational culture and maintenance capabilities.

TCM: Geographically, where is new, replacement and upgrading demand for tank container cleaning systems coming from?

GCS: Demand is currently coming from several directions simultaneously. In mature markets, many projects are focused on upgrading existing facilities. Depot operators are looking to improve energy efficiency, automation, safety standards and cleaning consistency while extending the operational life of existing infrastructure. In developing markets, there is still substantial investment in new capacity, particularly in regions where chemical production and logistics activities continue to expand. Another important trend is that many depots are upgrading capabilities to handle more difficult cargoes and broader product portfolios. This often requires improvements in automation, process control and cleaning flexibility. The industry is becoming more quality-driven overall.

TCM: What is considered state-of-the-art in terms of tank container cleaning systems?

GCS: Modern tank cleaning systems are increasingly defined by integration and process control rather than by individual hardware components. State-of-the-art facilities today combine automated cleaning sequences, intelligent process monitoring, advanced heating integration, efficient water management and high levels of operational traceability. Automation is becoming increasingly important, not necessarily to eliminate operators, but to improve consistency and reduce dependency on individual operator experience. Another major development is the growing use of data and monitoring. Customers increasingly want real-time operational visibility, energy monitoring, recipe management and cleaning validation capabilities. At the same time, flexibility remains critical. The most successful systems are capable of handling both simple and highly demanding cargoes without sacrificing throughput efficiency.

TCM: What differentiates one cleaning technology from another?

GCS: There is no single "best" cleaning technology. The effectiveness of a cleaning system depends on how well it matches the cargo portfolio, operational model and infrastructure of the depot.
Several factors determine performance:
- The interaction between chemistry, temperature, mechanical impact and cleaning time
- The efficiency of heating systems
- The effectiveness of spray technology and flow dynamics
- Process automation and recipe management
- Water treatment and recycling integration
- Operator interaction and process control

Many cleaning challenges are not solved by simply increasing pressure or temperature. Successful cleaning is usually the result of optimising the entire process. There is also an increasing focus on repeatability. Customers want predictable outcomes regardless of operator shifts, environmental conditions or throughput pressure.

TCM: What trends are there in tank cleaning technologies?

GCS: Several trends are clearly shaping the industry. First, energy efficiency has become significantly more important. Energy costs are rising globally, and sustainability targets are increasingly influencing investment decisions. Second, automation and digitalisation continue to advance. Operators want systems that provide greater process transparency, reduced manual intervention and more consistent quality. Third, flexibility is becoming essential. Cargo portfolios are changing faster than in the past, which means depots must be capable of handling a wider range of products without major operational disruption. Finally, safety expectations continue to increase. Reducing operator exposure, minimising confined-space entry and improving process reliability are all major drivers.

TCM: How are depot cleaning demands and preferences changing?

GCS: Depot operators today face increasing pressure from multiple directions simultaneously. Customers expect faster turnaround times, broader cleaning capabilities and higher quality standards. At the same time, depots are dealing with rising labour costs, stricter environmental regulations and higher utility costs. As a result, there is growing interest in systems that improve operational predictability and reduce dependency on manual intervention. Another clear trend is that customers increasingly want scalable systems. Rather than investing only for today's requirements, they are looking for facilities that can adapt to future product changes and market developments.

TCM: With energy costs increasing, what are the energy-measures being incorporated in cleaning technologies?

GCS: Energy efficiency has become one of the central themes in modern tank cleaning. Historically, many cleaning systems were designed primarily around cleaning performance and throughput. Today, customers are increasingly focused on reducing total operating costs and environmental impact without compromising cleaning quality. Several approaches are being adopted. Heat recovery systems are becoming more common, particularly where high volumes of heated water are used. Better insulation, improved steam integration and smarter process sequencing can also significantly reduce energy consumption. There is also growing attention on optimising the balance between temperature, chemistry and mechanical action. In many cases, smarter process control can achieve equal or better cleaning results with lower energy input. Water management is closely linked to energy efficiency as well. Reducing water consumption generally also reduces heating demand, wastewater treatment loads and overall utility costs.The broader trend is clear: customers increasingly evaluate cleaning systems not only on capital cost, but on long-term operational efficiency. ➔

TCM: What tank cleaning trends do you see?

GCS: One major trend is increasing complexity. Cargo portfolios are becoming more diverse, product purity requirements are increasing and logistical flows are changing more rapidly. Another important trend is the continued professionalisation of depot operations. Many operators are investing in higher standards, better process control and more advanced automation. We also see growing emphasis on operational resilience. Customers increasingly want systems that can maintain consistent performance despite fluctuations in labour availability, energy prices or product mix. Sustainability will remain a major long-term driver as well, particularly regarding water usage, energy efficiency and waste reduction. There is a trend across all markets for customers to ask for a complete care package and we continue to expand our service activities to meet this request.

TCM: What are the most difficult products to clean?

GCS: The most challenging products are typically those that combine strong adhesion characteristics with strict cleanliness requirements. Products that polymerise, cure, crystallise or become highly viscous under certain conditions can create significant cleaning challenges. Timing often becomes critical, particularly if products are allowed to harden or age inside the tank. However, cleaning difficulty is not determined solely by the product itself. Factors such as transport conditions, unloading quality, ambient temperature and elapsed time before cleaning can dramatically influence the cleaning process. Operational procedures and process consistency are often just as important as the cleaning hardware itself.

TCM: Do you see any trend to different pre-cleaning 'last cargoes'?

GCS: Yes, cargo portfolios are clearly evolving. Global chemical flows continue to shift due to geopolitical developments, regional production changes and supply chain restructuring. As a result, depots are increasingly exposed to broader and more dynamic product portfolios. We also see growth in specialised chemicals, higher-value products and cargoes requiring stricter contamination control. This trend reinforces the need for flexible cleaning systems capable of adapting to changing operational demands.

TCM: How are cured latex and LNG tanks cleaned?

GCS: Highly specialised cargoes require carefully engineered cleaning strategies. For products such as cured latex, process timing and pre-treatment can be extremely important. Mechanical removal methods, specialised chemistry and controlled process sequencing may all play a role depending on the condition of the residue. LNG-related cleaning presents very different challenges, often involving strict safety procedures, gas management considerations and highly controlled operational protocols. In both cases, successful cleaning depends on combining technical process knowledge with practical operational discipline.

TCM: What is the range of cleaning times for a tank container, from the easiest to the most difficult?

GCS: Cleaning times can vary enormously depending on the cargo, tank condition and required cleanliness standard. However, it is important to recognise that speed alone is not the objective. The real challenge is achieving reliable and repeatable cleaning quality while maintaining efficient depot throughput.The industry is increasingly focused on optimising total process efficiency rather than simply minimising cycle time.

TCM: Water quality varies around the world. How sensitive to water quality are tank cleaning systems?

GCS: Water quality can have a major influence on cleaning performance, equipment reliability and operating costs. Hardness levels, dissolved solids, contamination and microbiological content can all affect cleaning outcomes and system longevity. In some regions, water treatment and conditioning become essential parts of the overall cleaning process. The key is designing systems that are adapted to local utility conditions rather than assuming identical operating environments worldwide.

TCM: Are there consistent demands for faster turnarounds, even in the current subdued market?

GCS: Yes. Turnaround pressure remains strong throughout the industry. Even during softer market conditions, equipment utilisation remains extremely important for operators and transport companies. However, customers no longer simply want faster cleaning; they want predictable throughput combined with reliable quality. Unplanned delays, inconsistent cleaning outcomes and operational bottlenecks often create larger commercial impacts than marginal differences in nominal cleaning time.

As a result, operational stability and process consistency are becoming increasingly valuable.

TCM: Are changing product flows stimulating new interest in top-end cleaning at depots along the 'new' routes?

GCS: Absolutely. Global trade patterns are becoming more dynamic due to geopolitical developments, tariffs, regional production shifts and broader supply chain restructuring.

As cargo flows change, depots along emerging or expanding trade routes are increasingly required to handle more specialised or demanding products.This creates growing interest in higher-end cleaning capabilities, particularly where operators want to attract more complex chemical traffic ordifferentiate themselves through service quality.

We expect this trend to continue as global chemical logistics become more regionally diversified. ■

OPERATOR

How profitable are tank container **operators** *likely to be?*

Leslie McCune continues his analysis of the attractiveness and potential profitability of the tank container operator sector using Professor Michael Porter's well-known 'Five Forces' competitiveness model.

In the three previous issues, the **THREAT OF SUBSTITUTES** was viewed as being **LOW** while the extent of the **BARGAINING POWER OF CUSTOMERS** over tank container operators - the third party logistics firms offering door-to-door delivery of bulk liquid, gases and powders - was considered **MEDIUM**.

A third force - looking at the **THREAT OF NEW ENTRANTS** into the leading group of tank container operators - was seen to be **LOW**, although private equity, asset managers or other logistics entities may look for positions among the Top 10 players.

We now consider the extent of the bargaining power of suppliers to the tank container operator sector. These include tank container manufacturers, lessors, suppliers of capital, and those offering depot services. Supplier power is one of several determinants of the sector's competitive intensity and its potential profitability.

Porter's Five Forces model

Professor Michael Porter is a Harvard academic with a worldwide reputation as one of the foremost authorities on the global competitiveness of industries. He is the author of a compendium of books and articles on competitive strategy and competitive advantage and is said to be the most cited author in business and economics.

Porter's so-called 'Five Forces' model is a simple but powerful way of understanding the competitiveness of an industry sector and can be used to identify the potential profitability of a company's strategy. It has become one of the most popular and highly regarded business strategy tools and, along with the ubiquitous SWOT (Strengths Weaknesses Opportunities Threats) assessment, has become an essential market analysis tool in most company board rooms.

The model identifies five forces that make up the competitive intensity of a market. These either erode or enhance the profitability of a company operating within the market. The five forces are:

Force 1: Threat of substitute products or services
Force 2: Bargaining power of buyers (i.e. customers)
Force 3: Threat of new entrants
Force 4: Bargaining power of suppliers
Force 5: Rivalry among existing competitors

(In 2018, *Tankcontainer Magazine* applied a similar 'Five Forces' analysis to the tank container leasing sector).

FORCE 1: Threat Of Substitutes

In last September's issue, we analysed the extent to which the assets and services of tank container operators could be substituted. The threat of substitution refers to the likelihood of customers finding different ways of providing what tank container operators currently deliver. A substitution that is cheap and easy to make would weaken the position of an operator and threaten its profitability.

We considered packaging alternatives to tank containers (i.e. drums, IBCs, flexibags, road tankers, rail tank cars, parcel tankers, pipelines and local production) and assessed the ease with which operators could be substituted by other supply chain models (owned assets, 4PLs, etc.).

We concluded that the **THREAT OF SUBSTITUTES** to the products and services offered by tank container operators is LOW and therefore the power of these potential alternatives was WEAK. This was a positive signal on the attractiveness and potential profitability of the tank container sector.

FORCE 2: Bargaining Power of Buyers

In December, we considered the second of Porter's five forces: the bargaining power of buyers i.e. what strength have chemical and foodstuff producers got over tank container operators when they buy their services?

We concluded that **THE BARGAINING POWER of BUYERS** (i.e. companies using tank container operators) is **MEDIUM**. The customer cohort using tank containers is fragmented and includes BASF, Dow, Sinopec, LG Chem, Aramco/SABIC, Sadara, Arkema, Evonik, Infineum, Air Liquide, Ecolab, Sipchem, S-Chem and Barry Callebaut.

None, however, are so dominant that they have the power to disproportionately influence overall market rates. This relative buyer weakness is partly offset by the strength the major producers have in today's generally weak tank container market where utilisation rates are close to historic lows. However, the apparent easy availability of tank containers can be deceptive as supply can be locally tight due to high freight rates (which discourage the re-positioning of empty tank containers), the limited availability of specific equipment types or unacceptable last cargoes.

FORCE 3: Threat of New Entrants

The number of tank container operators in the global fleet has increased by a quarter to more than 240 in the decade to 2026, during which time the owned and leased-in operator fleet has doubled to 629,996 tank containers. There has therefore been a relatively slow increase in the number of operators, implying the market has been insufficiently attractive and/or too difficult to penetrate for potential new entrants.

While tank container lessors offer acquisition opportunities for investment funds, the currently weak market conditions in the operator sector are unlikely to attract new entrants in the near term as many struggle to sustain their all-important cash flow. The leading operators are more secure but are still having ➔

Professor Michael Porter.
Photo: Harvard Business School

to work hard to be profitable, especially those with a greater exposure to the weak European market.

We concluded that the **THREAT OF NEW ENTRANTS** into the leading group of tank container operators remains **LOW**, although private equity, asset managers or other logistics entities may look for positions among the Top 10 players.

FORCE 4: Supplier Power

The **BARGAINING POWER OF SUPPLIERS** refers to the pressure suppliers can exert on their customers by increasing prices, reducing quality or even restricting the availability of essential inputs. These pressures can impact the competitive environment and profit potential of buyers.

High supplier power most often occurs when there are few suppliers, switching costs between supplies are high or when there are few substitutes available. In these situations, buyers in price-sensitive industries often pay more while the contract and invoice terms offered by suppliers may be less generous. If these characteristics were a feature of the tank container manufacturer/operator relationship, the constraints could lead to reduced profitability for tank container operators.

Tank container operators have a number of essential inputs from suppliers. Most obviously, they are supplied with equipment by tank container manufacturers but they also rely on tank container lessors for leased-in equipment. Less tangibly, but equally importantly, operators rely on a number of other essential inputs, including the supply of capital from investors to fund the business and the supply of tank container depot services to maintain and service their assets.

Suppliers of capital

The supply of capital can come from a variety of sources with larger operators being able to finance their operations through their own credit lines. This is most commonly done by privately-owned tank container operators but, in practice, there are good reasons why publicly listed operators use a mixture of debt and equity to fund their business.

The Weighted Average Cost of Capital (WACC) is the financial metric used to measure the average cost a publicly-owned tank container operator incurs to finance its operations using debt and equity. A typical current rate of around 10% is used as the discount rate in the Discounted Cash Flow calculations that are key to valuing tank container fleets.

Although lending terms and conditions have to be respected, non-equity suppliers of capital to an operator have little power over operators as, in the final analysis, alternative sources are plentiful.

Supply of depots

Tank container depot services are available globally although their capabilities and competence vary. Many larger tank container operators now either own depots, have joint ventures focused on depot assets, or have 'strategic partnerships' with these essential service providers.

At one extreme is Stolt Tank Containers, the tank container market leader in terms of fleet size (65,000 tank containers at the end of 2025). It has 22 full-service depots and refurbishing facilities, nine of which are wholly owned. Other operators adopt a more laissez-faire approach: "Why keep a cow when milk is freely available in the supermarket" (although in times of low market demand, such as today, depot space isn't freely available).

Depots do have some power over tank container operators but it is generally relatively weak with competition in the mature markets keeping fees low. Their pricing power does however vary through the economic cycle, being stronger when the market is soft and utilisation low. During these periods, storage space is at a premium. When the market is more active, tank turnaround times become more important.

Depots may also have greater negotiating strength in developing regions, where depot options may be more limited.

Supplier power tends to be weaker in markets - such as the tank container depot sector - where there is a low degree of concentration among potential suppliers. The most noteworthy initiative to consolidate the sector is being driven by Depot Connect International (DCI), which is backed by KKR, a leading US-based investment firm with $744 billion of assets under management.

Suppliers of tank containers

At a fundamental level, the two key suppliers are the **tank container manufacturers** and the **lessors** providing equipment to the operators (approximately two thirds of all tank containers on-lease are leased to tank container operators).

Suppliers are most powerful when companies are dependent on them and cannot switch to other suppliers because of higher costs or lack of alternative sources. In these situations, powerful suppliers can use their negotiating leverage to charge higher prices or demand more favourable terms from industry competitors, which lowers industry profitability.

In 1913, Winston Churchill, as First Lord of the Admiralty, switched the Royal Navy from coal to oil but warned of the danger of depending too much on any one source of the oil for the fleet, observing: **"Safety and certainty lie in variety and variety alone"**. Over a hundred years later, restrictions on the free passage of shipping through the Strait of Hormuz underscores the strategic importance of having supply chain 'variety'.

Very simplistically, the power of tank container manufacturers and lessors is determined by how easy it is for them to influence tank container prices and per diems, which are obviously closely correlated and depend on how many potential manufacturers and lessors are offering the specific equipment needed. The greater the choice of suppliers, the more opportunity there is to switch.

Chinese tank container manufacturers produce around 95% of all tank containers. They include CIMC Safeway, NTtank, CXIC, Singamas, Dalian CRRC, JJAP and ZZTC. **CIMC dominates** not just Chinese production but the world's production of tank containers. Since their first standard stainless steel ISO tank container rolled off their production line in November 2001, they have grown to account for more than half of all tank containers manufactured every year.

Smaller scale, more specialised tank container manufacturing is also done by **Welfit Oddy** in South Africa, and **Van Hool, Van den Bosch** and **Rootselaar** in Europe. At a time when Chinese tank container manufacturers account for over 95% of the world's overall capacity, these European and South African tank container manufacturers have a strategic value for those tank operators that are uncomfortable with a complete dependence on Chinese manufacturers.

A key driver of supplier power is the extent of concentration among tank container manufacturers. A few large, dominant suppliers can control the market and limit the buying options for buyers but, while CIMC completely dominates tank container manufacturing volumes, there is a sufficiently large number of alternative smaller manufacturers available.

Supplier power is also high where a supplier such as a tank container manufacturer provides specialised, differentiated or unique equipment, or where there are high switching costs to other manufacturers. This most often occurs when changing suppliers is costly, technically difficult and/or time-consuming. However, in the tank container market, changing between different manufacturers of standard tank containers is comparatively straightforward, not least because of the standardised ISO characteristics of T11s, which account for the majority of tank container fleet.

CIMC's strength comes from its economies of scale and its ability to provide the full range of tank container types, including T75 cryogenic tank containers. Those tank container manufacturers outside China cannot hope to compete against Chinese manufacturers of standard, plain vanilla T11s.

For specialised tank containers, the situation is more nuanced. **Welfit Oddy** in South Africa - since 2024, under the ownership of Rockwood, an investment holding company - has limited production capacity but focuses on manufacturing more customised tank containers. So-called 'low special' customers include Bertschi, Richter and Bruhn while other customers include Bulkhaul, HOYER, NewPort, Eurotainer and TWS.

Bulkhaul has a particularly strong relationship with Welfit Oddy, with the first loads of new build tank containers usually being South African wine exports. The operator was one of the first to use high molybdenum 316L stainless steel for its T11 tank containers (higher levels of molybdenum significantly improve internal shell pitting, especially against chlorine-based solutions and sulphuric acid, by increasing hole and crevice corrosion resistance).

Although increasing costs by up to $1,000-per-tank, a wider range of chemicals can be carried in higher-molybdenum tank containers, widening the number of cargo opportunities.

Leasing

The costs of switching between manufacturers (or lessors) is also an important consideration since low switching costs reduce the power of the supplier. In the leasing sector, there is a greater choice of lessors than there are tank container manufacturers, implying there may be more opportunity to switch between lessors.

However, the top four lessors account for nearly two-thirds of the entire global leasing fleet of 393,999 tank containers, with a trend towards a greater proportion of the leased fleet being leased to operators compared with chemical and food/drinks producers and other tank container users.

Reducing supplier power

In general, there are number of strategies to reduce supplier power. These include diversifying sourcing to avoid dependency on a single supplier, standardising equipment to make it easier to switch suppliers, negotiating long-term contracts to guarantee pricing and supply, and possibly vertical integrating by producing vital components in-house or buying a critical supplier.

CIMC's 2020 acquisition of Lindenau Full Tank Services (LFTS) in Germany extended its small scale, highly specialised cryogenic tank container manufacturing in Europe and created a degree of vertical integration through LFTS's cryogenic depot capabilities.

LFTS was previously owned by EXSIF Worldwide and its customers include Linde/Praxair, Brenntag and TWS.

Summary and conclusion

To judge if the bargaining power of **tank container manufacturers** over **operators** is high we list the key conditions that must be in place and conclude if they are present in the relationship between tank container manufacturers and operators:

- Switching costs are high for tank container manufacturers to supply other operators (No)
- High threat of forward integration (i.e. tank container manufacturers becoming operators)? (No)
- Small number of suppliers relative to buyers (No, at least for T11s)
- Low dependence by tank container manufacturers on a few buyers (No)
- Substitutes are few (No, as an operator can lease rather than buy a new build)
- Demand is high (No. Average fleet utilisation is close to historic lows)
- Tank container operators rely heavily on a few tank manufacturers for product differentiation (No)
- Product is critical component of the business and has a high contribution to overall cost (Yes)
- The tank container industry is not a significant customer for the supplier compared to other industries (Yes)

Overall, we conclude that the bargaining power of tank container manufacturers over tank container operators is **LOW**. There are, however, some important caveats. The conclusion is based on the power balance for the industry's workhorse i.e. standard T11 tank containers. In this segment of the equipment market, tank container manufacturers cannot significantly impact an operator's bottom line by dictating terms, restricting supply and increasing equipment prices. This helps makes the profit margins of tank container operators more resilient.

The power balance changes markedly when operators require **special, technically-demanding** or **bespoke** designs of tank containers. The 'specials' tank segment is mainly made up of **T20** (8mm shell) and **T22** (10mm shell) tank containers - some of which may be multi-compartment - used for highly hazardous products. They feature internal, chemically-resistant shell linings; increased pressure resistance; high duty valve configurations for specific cargoes; and/or temperature control systems.

T20, for example, is used for fuming sulphuric acid, although T8 is used for less concentrated solutions of sulphuric acid. They meet ASME U2 stamp regulations for the US and typically have multiple steam heating runs, 304SS cladding and horizontal or vertical baffles to prevent surge.

Corrosive substances with a chloride content are not compatible with stainless steel and require T20 or T22 'special' tank containers. The most frequent cargoes for T20/T22 'specials' are acids although nitric acid is carried in aluminium, rather than 316L stainless steel, tank containers.

Technically-demanding tank containers include **T75 cryogenic** while an example of a bespoke tank container is HOYER's **titanium** tank containers, developed and built by Van Hool for highly corrosive molten MCA (monochloroacetic acid).

For lessors, a key attraction of offering more specialised tank containers is the longer term contract lengths of 5-7 years compared with the 5-year norm for standard tanks, which are more exposed to the lower return spot market.

Specialised tank containers also tend to have lower repositioning costs and require fewer customer-specific adjustments than standard tank containers. Lastly, there tends to be less competitive intensity in the specials segment as smaller lessors struggle to get funding for non-standard tank containers from banks.

Coming up ……
FORCE 5: Competitive Rivalry: considers the number and strength of rival tank container operators and assesses how the quality and availability of their products and services compare. Where rivalry is intense, profitability is threatened.

Leslie McCune is an independent tank container market expert and has worked with several tank container lessors and operators to analyse their individual competitive positions using Porter's Five Forces model. ■

OPERATOR

MARKET

Who's grown the most ***over the past decade?***

ITCO's latest **annual fleet survey*** reported **global fleet growth** of just **1.9%**, compared with **4%** growth in the **previous year**. It was an **unsurprising step down** from the compound **annual growth rate** of **7%** over the **past decade**.

Tankcontainer Magazine looks at the reasons and sees which operators and lessors have grown the most.

Market background

The context for the tank container market has been weaker global GDP growth, fundamental restructuring in the chemical sector as it endures a prolonged trough, and a fleet swollen by the exceptional needs of the post-pandemic period when tank container demand for both product movement and temporary storage boomed.

Europe has been in the throes of a once-in-a-generation reset of its chemical sector, which has been suffering, as the International Tank Container Organisation (ITCO) noted, "from high feedstock and energy costs, a tough regulatory environment, and pressure from ultra cost-competitive imports - especially from **China** where overcapacity exists and efforts are being made to find profit margins via exports, which are hard to achieve in the domestic market where overcapacity is suppressing margins."

The scale of the contraction in European chemical production over the past eighteen months has been exceptional and has been compounded by a wave of simultaneous closures, downsizings and the relocation of production assets to more competitive regions. The **Middle East** and **Asia** have over forty force majeures in place due to the Middle East conflict and, as a result, **US** producers are poised, as Dow's CEO noted, "to see a rapid improvement in their fortunes".

William Leigh-Pemberton, ITCO's Chairman, commented in his Chairman's Report: "[Slower growth] was to be expected, considering the variety of economic and geopolitical headwinds being experienced by the chemical industry, and weakness in global GDP growth. Since Covid we have witnessed the war in Ukraine, disruption from tariffs, higher energy costs, continued hostilities in the Middle East, and challenging environmental regulations.

The global fleet at 1 January 2026 now stands at 899,044 TEU, having grown 1.93% compared with 1 January 2025. Last year's survey noted the slowing in growth reflecting the inevitable adjustment required after the rapid expansion to handle the supply chain disruption caused by Covid. ➔

MARKET

This year's report appears to bear out that prediction, although the adjustment has been at the severe end of the scale.

However, the current disruption in the Middle East could see a return to previous conditions, where chemical companies have to protect their supply chains from geo-political bottlenecks, and stock must be held where possible instead of hoping to rely on just-in-time arrivals of material.

Nevertheless, as in previous years, we are pleased to report the tank container continues to prove its value as a shipping tank, a road/rail intermodal tank, and as a temporary storage tank, ideally suited to dedicated logistics supply chains in a volatile business environment.

We are strongly of the opinion that with China becoming increasingly self-sufficient in chemicals, and their demand growth lower than forecast, as well as other factors, there could be a trend away from global supply chains to more local-for-local supply chains, which could present a promising opportunity for tank containers supplying less accessible markets."

The report refers to the regional differences in the chemical sector, commenting that "In contrast [to Europe], the **North American** chemical industry has demonstrated somewhat greater resilience. However, even in North America, growth has been moderate rather than exceptional.

Asia continues to play a pivotal role in the global chemical market, with China and India representing major production and consumption centres. Nevertheless, the region has also experienced challenges related to overcapacity, particularly in petrochemicals. In China especially, substantial investments in new production capacity over recent years have contributed to oversupply in certain chemical segments.

The global oversupply of petrochemicals has led some companies to shut down older plants, delay investment in new projects, or restructure operations to maintain profitability. These developments inevitably influence transport demand and the purchasing decisions of tank container operators and leasing companies.

Another factor contributing to the slower net fleet growth in 2025 has been the increasing number of older tank containers reaching the end of their operational lives."

Analysis - OPERATORS

The global tank container sector continues to be dominated by a relatively small number of major tank container operators and leasing companies. The top ten operators accounted for over 329,900 tank containers representing just over 52% of the global tank container operators' fleet (629,996 tank containers).

Over the past decade, the Top 10 tank container operators remain broadly unchanged but the degree to which each of their fleet sizes has grown varies considerably.

STOLT TANK CONTAINERS

In tank container terms, the l**argest absolute increase in fleet** size has been by Stolt Tank Containers (STC), due to its acquisition in November 2025 of **Suttons International**'s fleet of 11,343 tank containers for a total consideration of $117 million (made up of a cash consideration for equity of $79 million and the share of closing net debt and lease liabilities of $38 million). The acquired fleet comprised 7,254 owned tank containers and 4,089 leased, with a goodwill premium of 53% on the value of the net assets acquired.

The acquisition of Suttons contributed to a decade-long fleet increase of 29,900 tank containers by STC, bringing the total to 65,000 at the end of 2025. It successfully maintained its long term market leadership position by organic fleet growth while delivering stable operating profits averaging approximately $60 million-a-year through the economic cycle (excluding the exceptional $173 million pandemic-fuelled operating profit in 2022 and the $290 million pre-insurance legal settlement in 2023 for the 2012 MSC Flaminia accident).

The appointment of the energetic Dr Udo Lange as CEO of the Stolt-Neilsen Group in 2023 has challenged the status quo and encouraged a change in STC's strategy, which is now to expand the fleet and broaden the product offering with specialised areas of expertise. Standardisation and centralisation are the two key internal initiatives.

However, in percentage terms, STC's fleet increase over the past decade has been 85%, only the fifth largest percentage increase among the top tank container operators.

INTERMODAL TANK TRANSPORT

By far the largest percentage growth has come from US-based Intermodal Tank Transport (ITT), where its fleet - after its acquisition of Bulk Tainer Logistics in August 2025 - is now well over five times the size of ITT's 6,000 tank container fleet in 2016. Even without the acquisition, ITT's fleet had grown to 20,000 by January 2025, a three-fold increase in a decade.

The acquisition of Bulk Tainer Logistics in 2025 pushed ITT into fifth position in the tank container operator fleet rankings, behind Stolt Tank Containers, HOYER, NewPort and Bertschi.

ITT's young fleet is supported by its network of cleaning and repair depots. It is the dominant carrier from the US and Europe to Latin America and its enlarged post-acquisition fleet of 32,000 tank containers will enable it to become a genuine deep sea operator, in a way that neither ITT nor Bulk Tainer Logistics were before the acquisition.

Apollo, one of the world's leading asset managers, made a structured equity investment in ITT in 2023 so acquisitions to accelerate the next phase of its growth were inevitable. (Structured equity investments combine debt and equity to enable companies to raise capital for acquisitions without business owners giving up control of their company.)

BERTSCHI

The third largest fleet increase - in both absolute terms (+21,200 tank containers) and percentage terms (133%) - has been made by Bertschi, which has also invested heavily in the expansion of integrated chemical logistics hubs in the key import regions in Europe, the Middle East and Asia.

It has also developed new entities and joint ventures in important Asian markets and is expanding its historically strong relationships with chemical producers, which remain among its priority customers. Over the past decade, Bertschi's fleet has grown to 37,200 tank containers.

Other notable fleet growth has been delivered by **E-WAY**, which did not have a significance global presence ten years ago but now has a fleet of 22,000, the vast majority of which are T11s with one-fifth used for food grade products. The company is very disciplined with its new build purchases and could be in the M&A news in the future.

HOYER, the second largest operator, increased its fleet by a modest 28% over the past decade, to 40,500.

Analysis - LESSORS

ITCO's fleet survey noted that the top 10 lessors accounted for 334,900 tank containers, representing about 85% of the total leasing fleet of 393,999 tank containers.

However, the change in the lessor fleet over the past decade has been more dramatic than in the operator sector. The overall lessor fleet grew by 89%, at a compound annual growth rate of 6.6%, to 381,781 tank containers. The three big, established lessors in 2016 - EXSIF Worldwide, Eurotainer and Seaco Global - have increased their fleets broadly in line with the overall market growth rate although each has been on a different journey.

EXSIF WORLDWIDE

Established in 2000, EXSIF Worldwide is a wholly-owned subsidiary of Marmon Holdings, Inc., a Berkshire Hathaway company chaired by legendary investor Warren Buffet. It is the largest single-brand tank container lessor in the world, with 71,300 units, but increased its fleet by a modest 4.9% p.a. over the past decade. With a reputation for tight cost management, it moved its tank container portfolio over time from one focused more on commodity T11s to one covering the full range of liquids, gas, cryogenic, offshore, Small Portable Tanks and, in the US, chassis.

EXSIF leverages its size to generate economies of scale when purchasing tank containers and depot services, and can no doubt exploit low cost finance opportunities without drawing on Berkshire Hathaway's $373 billion cash pile.

EUROTAINER

Eurotainer is part of the **STREEM** Group (previously Ermewa) and, like EXSIF, has grown its fleet organically over the past demand, with a compound annual growth rate of 5.2% adding 20,200 tank containers to bring its total fleet to 51,000.

In 2019, Ermewa consolidated its tank container leasing position by acquiring **RAFFLES LEASE** and its 14,300 tank containers. Ermewa integrated its Small Portable Tanks business following the sale of CCR's IBC business to HOYER and completed, in 2018, the acquisition of **TAYLOR MINSTER LEASING**, a small, specialised owner-managed tank container leasing company.

In 2020, Ermewa Group acquired Netherlands-based DEMI Container Services BV, specialising in tank container repairs, testing, warranty support, and the modification and refurbishment of all types of tank containers, Small Portable Tanks and trailers. DEMI opened a new facility in Houston in 2025 and has plans for the Middle East and Asia.

Raffles Lease has seen four-fold growth over the past decade with its fleet of 7,000 increasing to 38,000 by the beginning of 2026 while the combined Eurotainer/Raffles Lease fleets increased substantially, being boosted by over 51,200 tank containers to 89,000 to become the world's largest tank container lessor group.

SEACO GLOBAL

Seaco Global was the number two tank container lessor in the world (and sixth largest container leasing company) in 2016. It was then owned by Chinese conglomerate, the HNA Group/Bravia Capital, which acquired the company in 2011 for $1.05 billion. Renamed Seaco in December 2013, it was then placed within HNA's equipment leasing division, Bohai Leasing, a Shenzhen Stock Exchange-listed majority-controlled subsidiary of HNA. Bohai Leasing controlled a fleet of around 2.2 million TEU - the world's third largest container lessor - behind Textainer and Triton.

In 2015, Bohai Leasing secured a five-year loan of $480 million from the Bank of China to complete its $550 million acquisition of Cronos, the world's eighth largest box lessor and second largest tank container leasing company.

The bolt-on acquisition of Cronos created a tank container fleet of 43,000 which, at the time, matched EXSIF, then the world leader in the tank container leasing market.

Over the past decade, Seaco is the only tank container lessor where there has been a fleet decline, to 40,000 units. While still ➔

one of the leading tank container lessors, its growth was hobbled by the financial difficulties of its owner, the HNA Group, which had China's largest corporate debt pile of over $100 billion.

In 2018, Seaco's container leasing business was up for sale as Bohai Leasing came under financial distress following the bankruptcy and restructuring of its parent, the HNA Group. Valuation concerns put off potential buyers and offers fell short of the company's book value.

In May 2025, heavily indebted Bohai Leasing announced it was planning to sell its 100% stake in Global Sea Containers (Seaco) to **Textainer**, owned by US private equity firm **Stonepeak**, with an all-cash transaction value of $1.8 billion, including debt, for Seaco's fleet of 2.4 million TEU, featuring tank containers, dry containers, refrigerated units, and specialised containers, supported by more than 360 depots and 23 offices worldwide.

The acquisition bought scale and, with it, greater influence of global leasing terms and conditions, more efficient operations and potentially higher margins as unit maintenance and procurement could be driven down. Together, Textainer and Seaco controlled over 6.8 million TEUs, ranking them second only to market leader, **Triton International**, which Canadian alternative investment company, **Brookfield**, acquired for $4.7 billion in 2023.

The move was justified by "global trade growth, geopolitics (self-owned fleets appearing more reliable to shippers) and a distressed seller offloading non-core assets".
The container market has become increasingly attractive to private capital and infrastructure funds, hungry for high yields and hard physical assets backed by long-term leases, recurring revenues and predictable cash flows.

Now in a more comfortable place, one can imagine that Seaco's priorities may include fleet investment to maintain a competitive portfolio of tank types and number, and a reduction in the average age of its fleet.

CS LEASING

CS Leasing has delivered the **largest fleet growth** of all tank container lessors over the past decade.

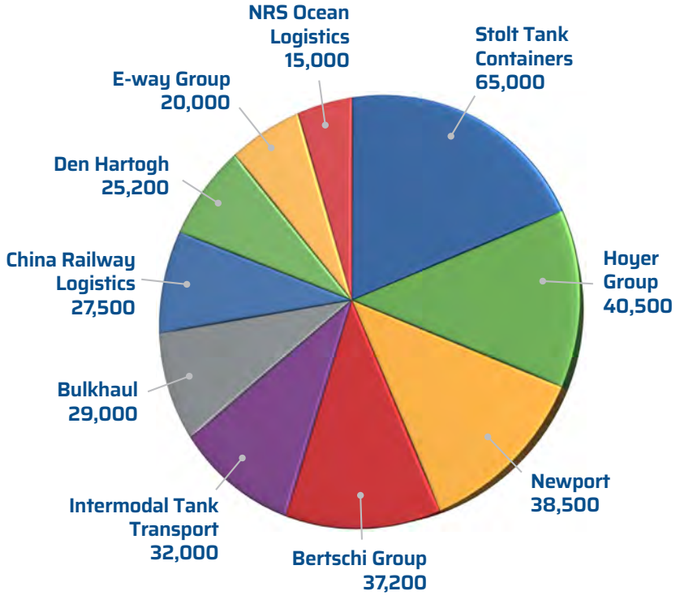
The company was originally formed as CARU Specialized Leasing Pte Ltd by CARU Containers and the Transportation Capital Group (TCG) before evolving into CS Leasing, focusing on tank containers and specialised equipment.

In 2017, Maas Capital - ABN Amro's maritime private equity platform - acquired all of the shares held by CARU Containers, thereby joining TCG and the management on the shareholder roll.

In 2021, US alternative financier EnTrust Global continued its shipping expansion by taking over Maas Capital, which by then had a portfolio of 15 controlling and non-controlling stakes in shipping, intermodal and offshore services assets.

The latest chapter in CS Leasing's dynamic growth was its sale, on April 1, to **ITE Management** L.P., a leading alternative asset manager focused on industrial transportation and infrastructure. By adding tank containers and dry freight specials to its existing portfolio of rail, chassis, dry container and aviation assets, ITE is targeting an expanded presence across key freight transportation sectors. The acquisition continues a **sector theme:** continued investment in the intermodal sector, often combining common ownership of leased railcar and tank container assets. Examples include EXSIF/Marmon Rail, Trifleet/GATX, Streem Group - Ermewa/Eurotainer/Raffles Lease, Falcon Lease/Sasser and CS Leasing/ITE.

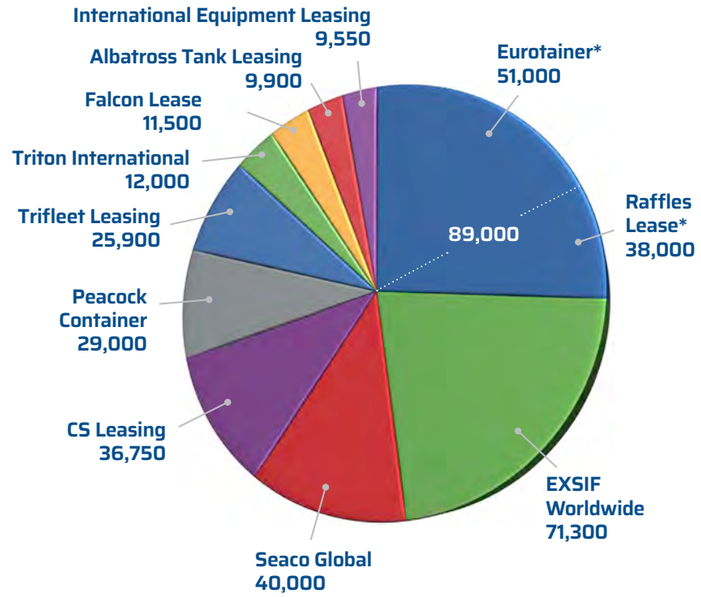
Top Ten Tank Container Operators



Over the past decade, the Top 10 tank container operators remain broadly unchanged but the degree to which each of their fleet sizes has grown varies considerably.

Top Ten Leasing Companies

The three big, established lessors in 2016 - EXSIF Worldwide, Eurotainer and Seaco Global - have increased their fleets broadly in line with the overall market growth rate.



PEACOCK LEASING

Fifth-ranked Peacock Leasing has also delivered spectacular fleet growth with a **twelve-fold increase** to 29,000 tank containers in the past decade. Arcus Infrastructure Partners acquired a majority stake in Peacock in 2021, when the fleet size was 7,500. It was attracted by the medium-sized lessor's fast growth, which was underpinned by a blue chip client base, on short and medium term leases, serving predominantly blue chip European and Asian operators and chemical producers.

Recognised as a nimble and innovative lessor, Peacock focused its investment on more specialised tank containers some years ago and its well-diversified combination of standard tank containers and more specialised units can handle a wide range of cargoes, including bitumen, LPG and liquid pharmaceuticals.

TRIFLEET LEASING

Mid-ranking tank container lessor, Trifleet Leasing, was acquired by Chicago-based GATX Corporation at the end of 2020 - when its fleet exceeded 18,000 owned and managed tanks - for $204.6 million (including post-closing adjustments) in an all-cash deal. By the end of 2025, the fleet had doubled to 25,602 compared with a decade ago and has an average age of approximately eight years.

Standard tank containers account for nearly three quarters of Trifleet's tank containers, with new builds being purchased mainly from CIMC, Jingjiang Asian-Pacific Logistics Equipment (JJAP) and NTTank. It had commitments to buy 930 new builds for delivery in 2026 and 2027.

In 2025, the lessor's turnover was $41 million, with a gross profit of 18% (down from 38% in 2022).

Singapore-based **FALCON LEASE** was founded in 2019 and has, since 2021, been owned by Sasser Family Holdings, which has interests in rail, aviation and automotive transportation businesses. It has a young tank container fleet of 11,500 T11s, T14s, T50 gas tanks and specials.

Sinochem International Logistics was incorporated into **ALBATROSS Tank-Leasing**, the Hong Kong registered subsidiary of Shanghai-based Gentco Logistics, in 2019. Originally focused on gas tanks for refrigerant cargoes in China, it extended into air gases and became the global platform for tank container leasing activities. Gentco Logistics also owns the operator, NewPort. Albatross has approximately 8,000 'specials' in its overall fleet of 9,900. ■

** ITCO's fleet survey reports start-of-year numbers for the year of its publication.*

MANUFACTURERS

Going for *growth*

Guard Europe B.V.'s new state-of-the-art warehouse is key to its development and future growth ambitions.

The tank container valves and spare parts supplier, based in Zoetermeer in the Netherlands, has moved to a new building, triple the size of its previous premises.

The family-run business was launched in 2014 after Michael Dandel, owner of tank container trading and leasing company Danteco, met Kevin Feng, Sales Director of China's Grande-Tek Flow Control Co., Ltd. Feng was looking for a partner in Europe, and invited Dandel, an industry veteran of 30 years, to the Guard factory in Cangzhou, China.

Michael Dandel's son, Milan Dandel, Regional Director of Sales at Guard Europe B.V., recalls, "When he witnessed the standards and capacity of the factory, he knew it could become a major player for the future. The factory has high-end engineering, machining, welding and casting equipment. This is why he decided to join forces and co-operate."

The Netherlands-headquartered Danteco, established in 2000, was one of the first tank container companies in Europe to equip its tank containers with Guard valves and spare parts. In 2019, a joint venture between the European arm and Grande-Tek Flow Control Co., Ltd. was established, creating Guard Europe B.V.

The European company mainly concentrates on the repairs and maintenance market, supplying a portfolio of valves and spare parts manufactured by its partner in China. These include manhole covers, air-inlet ball valves, butterfly valves, bottom and foot valves, flanges, and an extensive range of replacement parts for tank containers, road tankers, and rail tank cars. The products comply with international standards, including ISO 9001:2015, PED 97/23/EC, CE, GOST, and DVGW.

Dandel notes that the business started to rapidly grow in 2021, coinciding with a gap in the market for European-based tank container spare part suppliers. "In 2021, the number of tank containers circulating in Europe was growing, creating a demand for spare parts for the maintenance of older containers. Operators began noticing our brand, and the quality, and European players decided to start deploying us," Dandel says.

Guard Europe B.V. moved from weekly to daily orders. To maintain this growth, the company decided to invest in a new warehouse.

Dandel describes the new warehouse as a "deal breaker", adding, "Without this capacity, we could not grow any further, and serve big clients."

The company moved from a 120 square metre warehouse in Bergschenhoek, the Netherlands, to its new 400 square metre warehouse in Zoetermeer, in December 2025. As well as a jump in size, it offers other advantages, including the storage of pallets, in contrast to the previous warehouse, where only boxes were handled. At nine metres tall, capacity is boosted by the height of the building. In addition, the company has invested in a forklift truck to move pallets up and down and in and out of the warehouse. Previously all goods were handled manually. An 80 sq. ft office spans the top two floors of the building.

As well as a new warehouse, the company's growth has meant that Dandel's two brothers have now joined the business. Dandel was always interested in the family business growing up, as he watched his father manage Danteco and he grew to know the industry. Following a bachelor's degree in economics, he helped at the family's business, as well as working as an examiner for toxic gasses in confined spaces. Guard Europe B.V.'s growth has allowed him to take on a full-time position in the company.

The new warehouse is crucial to the company's growth plans because it has the capacity for a large inventory, reduced lead times, and provides a physical sign to large tank container operators that it has the stock that they need, overcoming concerns about spare part availability.

Dandel says: "Higher profile companies operate thousands of tank containers, and they want to see if you have capacity for spare parts – yes or no. If they see a small warehouse and no forklift truck, it doesn't matter if the products are good, ➔

you can't serve their need for product availability. Our new warehouse has allowed us to overcome this challenge."

The new warehouse has capacity to stock between 280 and 320 pallets, with every part in the company's catalogue in stock. This contrasts with the previous warehouse, when the company had to choose what to stock due to limited space.

The Guard Europe B.V. catalogue consists of 1,500 parts. Previously, if a part were not in stock, it would take six to seven weeks to order. But now, the new warehouse means parts can be delivered to most of Europe in two to three business days.

Dandel provides an example of how the new warehouse can offer parts that the old warehouse could not. "We could not offer manlid hatches in stock because they are large and need big pallets to handle them. Now we can stock them because we have the space and the pallets. Our short lead time has created a demand for them."

Guard Europe B.V. has also been able to offer PFA Lined valves, a new category of products used for the transportation of highly corrosive chemicals like acid. "There used to be only one or two suppliers for it, and we have now entered this market," Dandel says.

The new warehouse means that the company can be flexible and move quickly to meet developing market demand. Dandel says: "We can add valves for T50 gas tanks as a whole new product category, to our stock." While the demand is not currently present, the warehouse has the capacity to offer them as soon as the market for these products develops.

Dandel says that as the Guard Europe B.V. brand grows, more customers are likely to trust it with dangerous products like gas, commenting: "We expect more customers to choose our brand for more high-profile cargoes like gas."

Guard Europe B.V. also benefits from the backing of its joint venture partner, which has five factories, two foundries, two workshops for machinery and assembly, and one workshop for coatings. "We can do all production steps in our own group,

> *In 2021, the number of tank containers circulating in Europe was growing, creating a demand for spare parts for the maintenance of older containers. Operators began noticing our brand, and the quality, and European players decided to start deploying us*
>
> Milan Dandel, Regional Director of Sales, Guard Europe B.V.

allowing us to produce and develop new products really quickly because we don't have to involve external factories," Dandel says.

A challenge within the tank container valves market is safety. This is an area that Guard Europe B.V. homes in on. "How we handle the topic of safety in our brand is especially important. We can stand out by developing new safety features," says Dandel, singling out a recent safety feature that Guard has developed. "A common mistake is that operators forget to open the air inlet valve on the tank when discharging. When this happens, the tank will implode because of the vacuum. When loaded with dangerous chemicals that can lead to huge accidents," he explains. To prevent this, Guard has developed an InterLink system that connects the air inlet valve to the bottom of the discharge valve. When the operator opens this discharge valve, the air inlet valve automatically opens.

Dandel is also keen to highlight the importance of valve interchangeability, and how Guard Europe B.V. can help the industry with this challenge. "When we update our valves, we ensure that we maintain standard components that are interchangeable for the next 20 years. This is important in managing spare parts servicing." He points out that numerous component versions that lack interchangeability make it much more difficult to find the correct part in stock.

Guard B.V. Europe's goal is to become a major supplier in the European market over the next five years. Dandel explains that there are currently four major suppliers. "Globally we are one of the main players [Fort Vale, Pelican, Girard, Perolo], but for the local Europe market, we are not yet there because we did not have the capacity."

With the new warehouse, the company is now on track to break into this league. It already has 50 customers in Europe that are placing repeat orders.

A testament to Guard Europe B.V.'s growth potential is that its first annual turnover of €50,000 has doubled every year and is now close to hitting €1 million per annum.

Dandel explains that currently, the company's main aim is ensuring that the warehouse runs at full capacity. However, on the horizon is a potential move to another warehouse in 10 years' time that will double the capacity, as the business continues to grow. ■

MARKET

Headaches be *gone!*

Sending tank containers around the globe is now far easier thanks to the Supply Chain Cloud Platform (SCCP) developed by Shanghai Yishixin Intelligent Technology (YSXnovation).

It is perhaps no surprise that tank container use continues to grow, with the latest figures from the International Tank Container Organisation (ITCO) pointing to a 2026 global fleet size of 899,044 units, up from 882,023 at the start of last year. Tank containers, after all, offer shippers a host of benefits, most notably enhanced transport efficiencies, as their multimodal nature means that product can be sent in bulk by ship, train or truck without any need for repacking, decanting or reloading.

This not only removes costs and delays but also maintains product integrity. As well as being mobile storage systems in their own right, tank containers also have a useful economic life of 20 years or more while providing a fully reusable, demonstrably safe and highly standardised means of moving a wide range of hazardous and non-hazardous liquids around the globe.

However, despite these benefits, the process of consigning cargoes in tank containers can prove somewhat complex. For example, a single movement might require the shipper to find and hire a number of different shipping lines, agents, forwarders and logistics services providers (LSPs) in several countries, resulting in a deluge of emails, phone calls and documents that may well get missed, mislaid or misunderstood somewhere along the line. As a result, what should have been a straightforward shipment of product may well grind to a costly halt.

Web-based control

Fortunately, the web-based SCCP developed by China's YSXnovation can cut through the clutter, providing shippers with a single point of contact by which they can manage all interactions and movements. As well as enabling customers to quickly find the most suitable LSPs to work with from an ever-widening pool of players, the SCCP provides clear lines of communication with all players regardless of their physical location. Or, as a YSXnovation representative puts it, the platform "helps tank container users with global real-time tracking and tracing; multi-party upstream and downstream collaboration; and sea, rail and road management for multimodal transports".

Since its launch in 2024, the SCCP has continued to evolve, with YSXnovation taking it to "a new level" and making it even more comprehensive through the integration of additional new technologies and greater functionality. "In order for simple supply chain usage, we decided to develop [the SCCP] into three systems," the representative states.

The first of these is YPlatform. This element comprises the basic cloud platform that furnishes customers with an online dashboard by which they can oversee all aspects of the supply chain, including those pertaining to customer management, sales management, supplier management, operations management and accounting management. At the same time, it also offers specific components for managing tank containers, depots and freight centres while also giving access to the SCCP's second core component, YTerminal.

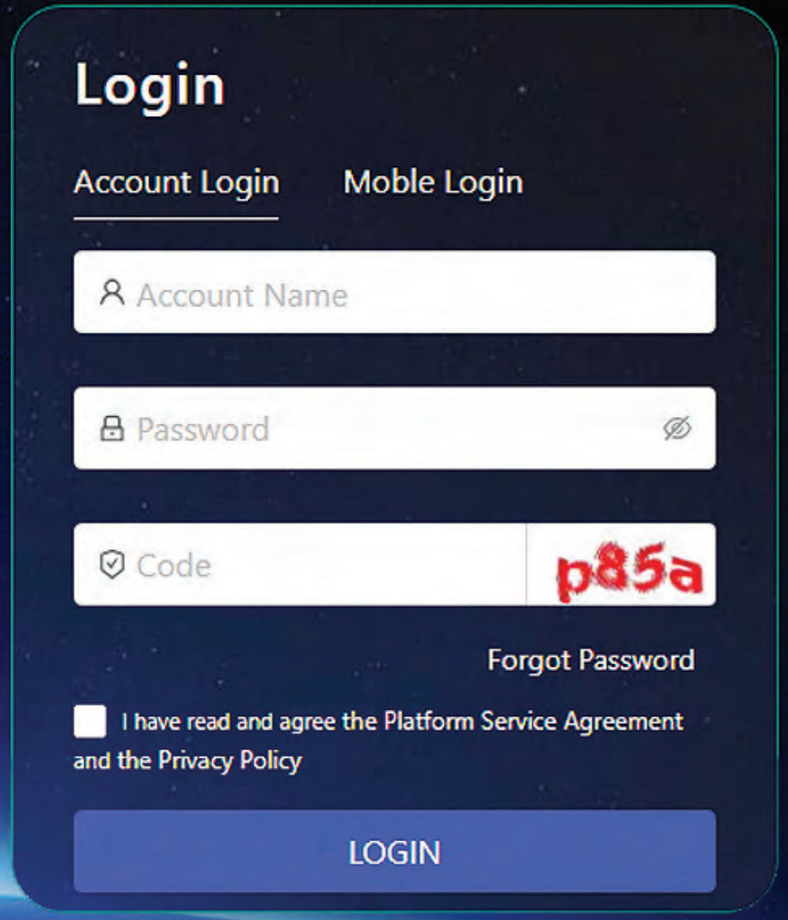
Information and alerts

"YTerminal is an intelligent terminal system that consists of a series of hardware [components] for different supply chain solutions," the representative explains. Using a combination of RFID, GPS and IoT technologies, these components consist of transmission and collection units attached, where required, to the outside and/or inside of a tank, box or reefer container to provide different types of real-time status updates and alerts via the YPlatform dashboard under the names Eloc, Esen and Eeye.

"Eloc monitors real-time location and sends alerts, Esen monitors temperature and humidity [and] Eeye is the latest [technology] to monitor the door or gate's opened/closed status during transportation or storage of the shipment," they report. Importantly, as well as being built to withstand the rigours of ➔

YSXnovation®
易时新

Supply Chain Cloud Platform



long-distant transport, all YTerminal hardware components are fully recyclable and equipped with solar-powered batteries that enable "years of usage" and ensure continual operation without the fear of any unforeseen power-downs.

The third and most recently developed facet of the SCCP is SAlgorithm, which, among other things, utilises AI technology for the provision of enhanced depot, industrial park and remote asset management. "[SAlgorithm] automatically identifies vehicles and shipments going in and out of all depots or storage areas, taking pictures of them and uploading them to the platform instantly," the representative states. Providing accurate location and movement data from within the monitored area, SAlgorithm fully integrates with YPlatform and YTeminal and allows customers to greatly improve the safety, security and efficiency of sites and shipments.

Knowledge is power

The amount of data accessible via the SCCP means a customer is readily able to view, review and scrutinise all aspects of their logistical operations. For example, not only can they pinpoint the precise location of a shipment around the globe as well as its status though Eloc, Esen and Eeye, but they can also more accurately determine when that particular consignment will arrive at its end destination, greatly enhancing customer service in an ongoing era of Just-In-Time production.

> *"[SAlgorithm] automatically identifies vehicles and shipments going in and out of all depots or storage areas, taking pictures of them and uploading them to the platform instantly."*

By providing a convenient and reliable means of monitoring all the information generated by each shipment, the SCCP allows customers to thoroughly appraise and benchmark the performance of all actors along the logistics chain. It also enables customers to quickly identify strengths, weakness and bottlenecks to better inform planning and decision making resulting in upward productivity and enhanced profitability.

The SCCP also makes it much easier to share information within the user's own organisation as well as externally with applicable partners, customers and regulators. As such, the SCCP can not only prove a boon in terms of smoothing out operational creases but also in achieving accurate and timely ESG reporting and regulatory compliance. "The platform helps chemical shippers ensure compliance and safety because we provide the automated bi-directional transmission of transportation status," the representative states. Meanwhile, thanks to the use of blockchain technology, all uploaded data is quickly traceable and forever impervious to any attempts to alter, change or falsify it. ➔

Data security

Given the sensitive nature of much of the data involved, YSXnovation understandably takes cybersecurity very seriously. From its outset, the company has been registered with all applicable data security bodies in China; maintained compliance with all legal requirements; and put in place numerous systems and procedures to keep hackers and snoopers out, employing the latest software to ensure that data is always traceable, recoverable and securely stored, handled and transmitted.

As testament to this, YSXnovation has now received a Value-Added Telecommunications Business License from China's Ministry of Industry and Information Technology. "The Value-Added Telecommunications Business Licence is the highest level in China for providing a platform service involving data safety and transmission," the representative states. "This license allows YSXnovation to legally and compliantly conduct core businesses, such as internet information services, online data processing and transaction processing."

"YSXnovation focuses on supply chain optimisation by using technology to increase efficiency and effectiveness," they state. "We are a technology company and don't provide supply chain or logistics services at any level. More importantly, we developed all our products (YPlatform, YTerminal and SAlgorithm) ourselves, from the basics of IT structure to R&D and testing and trials, and with patent protection [in place]"

Changing mindsets

With digitalisation increasing apace in China and beyond, it is perhaps no surprise that the SCCP has received a very "positive and promising" response from both SMEs and large companies alike. "As a new-entry player, we have not only been educating the supply chain market about cloud platform technology, but also developing it," the company notes. "The mindset change is remarkable compared to two years ago, from no knowledge - or being suspicious about cloud-based platforms - to most people now understanding and trusting them."

> *"The platform helps chemical shippers ensure compliance and safety because we provide the automated bi-directional transmission of transportation status."*

Founded by chemical logistics experts, YSXnovation is able to tap into a wealth of knowledge and expertise that can clearly be of great benefit to its customers. Proud of its commitment to independent research and innovation, the company has now been named as an authorised Study & Exam Centre by the UK-based Chartered Institute of Procurement and Supply (CIPS). Consequently, it can now provide third-party procurement and supply training with full CIPS certification to all interested parties at its location in Shanghai, with a new Diploma in Procurement and Supply course beginning in early June this year. ■

Readers interested in signing up for a free trial of the SCCP can do so at the YSXnovation website (https://www.yishixin.cn).

PEACOCK
CONTAINER LEASING

Customized tank container leasing

Telematics

Telematics solutions for enhanced product traceability and supply chain management.

Sustainable Solutions

Sustainable solutions for reducing the carbon footprint of ISO tank operations.

Fleet Management

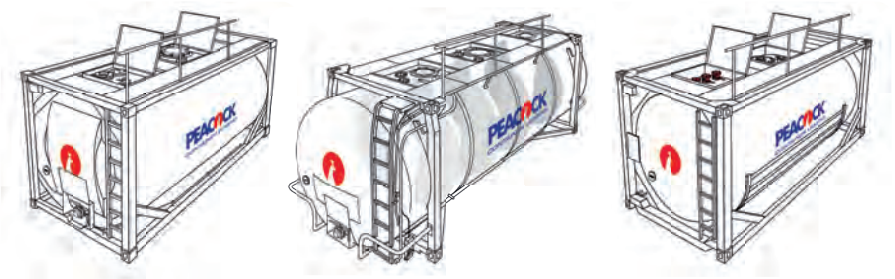
Fleet management services for reduced operational costs.

24/7 Fleet info

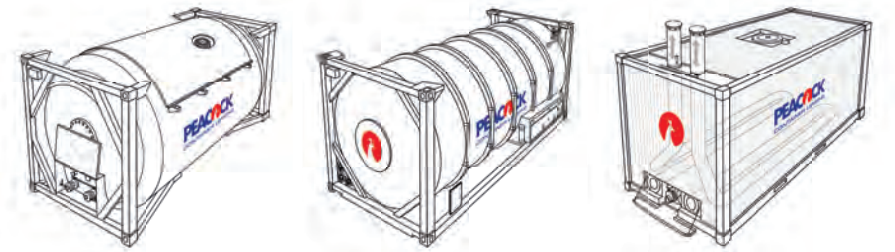
24/7 Cloud-based accessibility to fleet information and documentation.

Advice

Expert advice on product compatibility.



Standard | Swap body | Specialized



Gas | Cryogenic | Bitumen

Peacock offers worldwide access to standard and specialized ISO tanks for petrochemicals, liquid food products, bitumen, liquefied gases, and cryogenic gases. With over 30 years of expertise in ISO tank leasing, we provide reliable and flexible solutions tailored to your needs.

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