

OCTOBER 2022

**THE NEW AND
GAME-CHANGING
TECHNOLOGY
SOLUTIONS REDEFINING
LAST-MILE LOGISTICS**

PG 09 BY NISHITH RASTOGI

**A CONVERSATION WITH
DON TENG**

PG 23 BY DR. RAYMON KRISHNAN

**THE GREEN CORRIDOR:
CHARGE ME UP! ENERGY
STORAGE DEVELOPMENT
– A FAST EMERGING
TECHNOLOGY NEEDED
FOR SUSTAINABILITY**

PG 37 BY TIMOTHY FOOTE

www.LogiSYM.org



The Official Journal of The
Logistics & Supply Chain
Management Society



**The Age of Agility:
Building Resilience in
the Supply Chain**

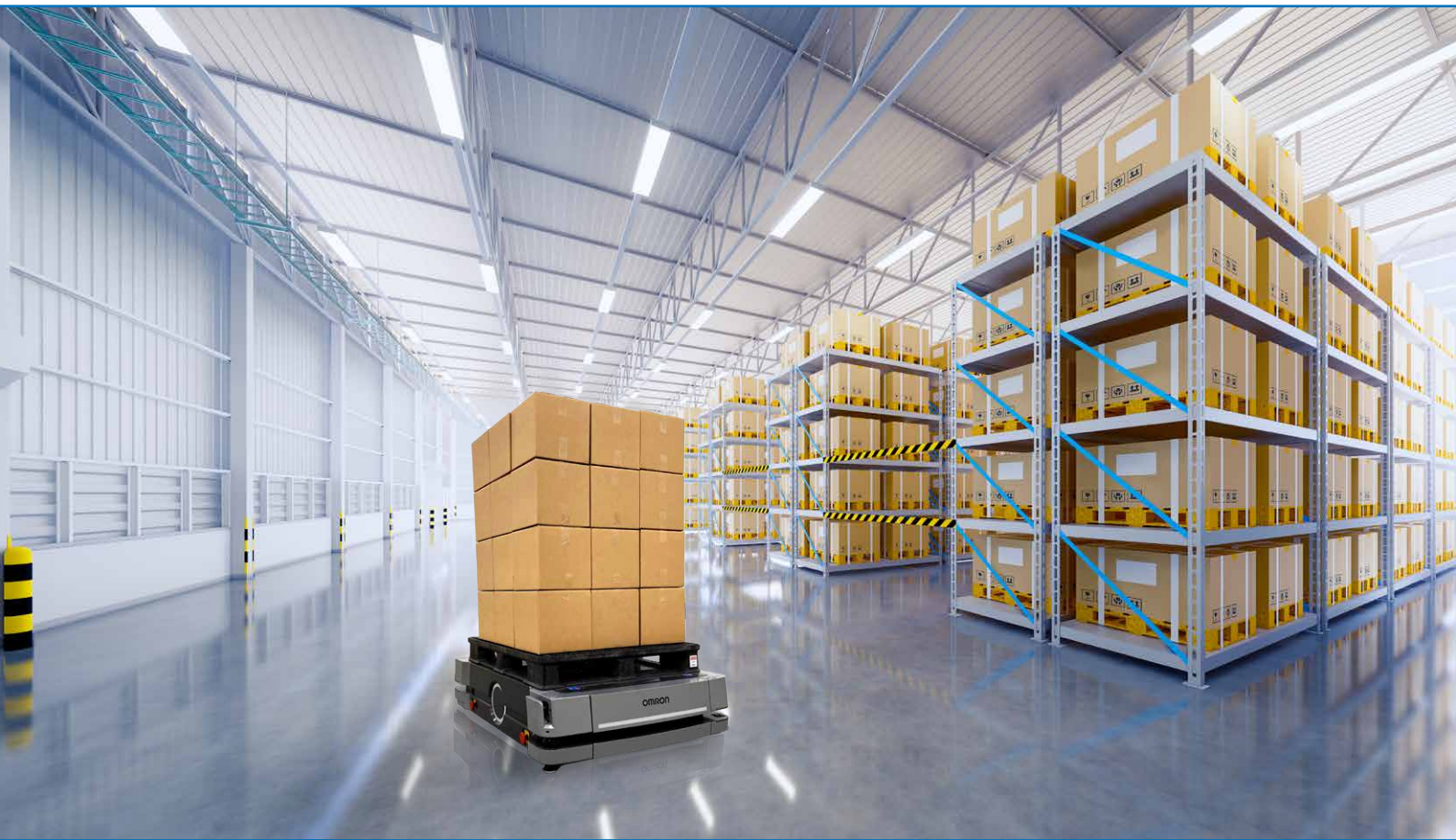


Logistics Solutions

OMRON

OMRON Logistics and Warehouse Automation

Solving Real Problems with Customers + Partners using OMRON Logistics Solutions



80+ years in automation

Founded in 1933, OMRON is a global leader in the field of automation with 30,000+ employees.



Global support and expertise

We build automation systems in nearly every country and all regions of the world.



Look out for our new
Logistics 4.0 Solutions Development Centre
coming to you this December, delivering
Smart, Seamless and Safe Solutions for all your
intralogistics needs!

OCTOBER 2022

CONTENTS PAGE



A Conversation with **DON TENG**

Managing Director
at OMRON Asia Pacific

23

Contents

- 4 Editorial Message
- 6 President's Message
- 12 Air Freight News
- 21 Supply Chain News
- 28 Logistics News



Articles

- 09 The New and Game-Changing Technology Solutions Redefining Last-Mile Logistics
- 17 The Age of Agility: Building Resilience in the Supply Chain
- 23 A Conversation with Don Teng
- 31 Largest Pharmaceutical Facility in the Kingdom of Saudi Arabia
- 37 The Green Corridor: Charge Me Up! Energy Storage Development – A Fast Emerging Technology Needed for Sustainability



.....Are We Now in an Accelerating Pace of Initiatives with Moving Targets.....?

Dear Readers,

There is no doubt that the speed of adopting new technologies, with solutions intended to drive our ambitions, is clearly here to stay. The continuous economic pressures and complexities that surround our supply chains are creating many new challenges for which we need faster solutions.

Our October edition has several articles on technology and the environment, with interesting views by each of the contributors. The accepted trend of technologically driven change is clear to all. But the speed at which transformations are being driven is perhaps where lie some of the concerns.

If we understand the ambitions driving transformations, we could appreciate the urgency to accelerate the speed of change and desire for new technologies. And there is nothing wrong with that ambition if we can temper these elements with the right balance across the organisation.

Whilst technology transformations are racing ahead, there is a great realisation that new talent is also needed to deploy and sustain. And here lies the greater challenge. The resources required to deliver the transformations at the current speed are indeed high, complex and scarce - to the point where companies are having great difficulties finding the resources they think they need. And yet their current organisation has many resources. So where is the gap between the ambition and the reality? The technology aspirations for the desired transformations are racing ahead, but do not seem to be aligned to the existing resources capabilities to digest the changes.

For transformation programs to be successful and in particular at the high pace of evolution, there needs to be inspiring leadership at the helm of the organisation. It is not enough for the top leadership to pursue high profile and high energy technology initiatives without leading a counter-balance plan.

Too often leaders push the whole organisation in a highly mechanised transactional based structure. Again, there is nothing wrong with that. However the leadership has to create and lead the counter-balance; that is also about a focus on sound relationships that is needed to sustain the speed and growth of high performance expectations of the organisation.

One may say, this is nothing new - which is obvious and top leaders should be doing it by default. But the reality is that many key leaders are not creating the counter-balance, even if they are aware of it. Take a look at the number of disconnects and misalignments in your organisation. Look at the level of collaboration between departments and look up the ladder and see how leaders are collaborating. These observations are not new, but the speed of technology may be creating even wider gaps. Top leadership should be focusing on a real alignment at all levels, to create better collaboration.

We are always happy to hear your views and welcome comments on our content and your feedback would be most appreciated - we look forward to receiving your feedback at info@lscms.org

Meanwhile take care and stay safe!

Joe Lombardo
Editor-in-Chief LogiSYM Magazine



**10 November
2022**

Free online Master Class

Tackling labour shortages

Learn how to increase labor engagement and improve productivity.



Register now



Register by scanning QR code or visit
bit.ly/koerber_masterclass



The Sky Is Not Falling.... Yet

Stakeholders and interested parties in supply chains the world over have been watching with bated breath the downward trend in global ocean freight rates. Many naysayers are suggesting that this is a clear indicator of a recession. They could be right but it is not all doom and gloom yet.

Yes, ocean freight rates are falling but they are still quite a fair bit higher than what they were during the same period in 2019. Air freight rates are also heading south - albeit at a slower rate but here they are still much, much higher than they were pre COVID.

Logistics is a derived demand. Rates and volumes are an indicator of how supply chains and economies, both regional and globally are fairing. Yes, we are seeing less volume being shipped and rates declining quite a fair bit but if we wanted to take a rather more optimistic approach, we could view what is happening at the moment simply a market correction or realignment as we emerge into the better normal.

Strategically, I think we should focus our attention on two more important areas. Firstly, whilst much has and is being said about sustainability and ESG, much of what we experience today is simply greenwashing and what we at the Logistics Society call Sustainability Opportunism. Most Logisticians I speak to are clueless about how to actually implement and manage a more ESG focussed supply chain and with 2023 on the anvil, the time for us to act is now.

Secondly, on the topic of rates and business continuity, we must be cognisant that supply chains are managed by people. Relationships, individual know-how and networks and commercial fortitude and respect is needed on both sides of the table as we engage in freight contract negotiations. Carriers may have been seen to have taken advantage of the situation these last couple of years and made record profits. With the market softening, it is now payback time for the shipper or BCO (Beneficial Cargo Owner). Yes, some are encouraging this approach but to do so would be counterproductive and very shortsighted. We need to find that balance and equilibrium when we engage with our logistics partners. This is not always easy as it takes two hands to clap and of course we have to contend with internal factors within our organisations as well. It's a fine line to tread. One of the ways the Logistics Society is supporting Logisticians in these two endeavours is through the efforts of the shippers council. Started and managed by industry doyens, the Council is slowly but surely building up capability and expertise to support BCO's. Much more work to be done and we are all quite excited at the prospects and opportunities.

I hope you find this bumper issue of LogiSYM a worthwhile read and I look forward to seeing you at LogiSYM Platinum in a few weeks.

This is the Way

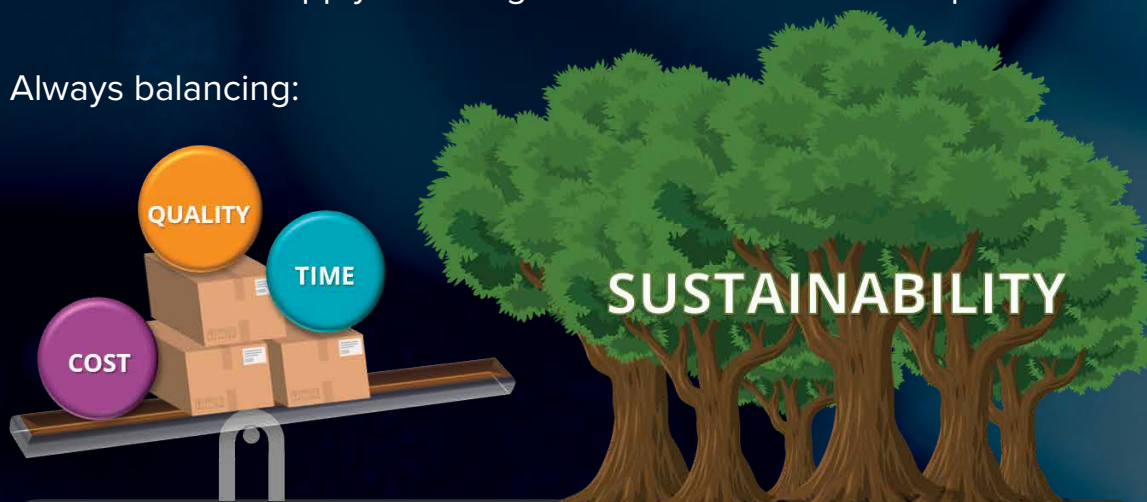
Raymon Krishnan, FALA, FCILT, CLP
President, The Logistics & Supply Chain
Management Society

IDC Delivers Insights You Trust

Supply Chain data and analysis for Business & Technology Leaders at your fingertips

Challenges are prevalent in the Supply Chain industry especially with the recent disruptions. Based on IDC Worldwide Future of Operations Survey, 2021, the data collected indicates the motivation behind supply chain digitalization and businesses priorities.

Always balancing:



TRANSPORT COSTS
ACCURACY
AGILITY
SUPPLY SHORTAGES
SERVICE QUALITY
SHUTDOWNS
SPEED
VISIBILITY
LABOUR SHORTAGES

Top Business Priorities



Source: IDC Worldwide Future of Operations Survey, 2021, n(AP Manufacturing) = 252, n(AP Transport & Logistics) = 52

IDC provides global supply chain research offerings to advance your organization's **supply chain capabilities**, **build resiliency** and **manage risks**.

Our research practices covers the following:

- Digital Supply Chain Execution and Transformation Strategies
- Supply Chain Planning & Multi-Enterprise Networks Strategies
- Warehousing, Inventory and Order Management Strategies
- Transportation, Logistics & Global Trade Strategies
- Product Sourcing, Fulfillment, and Sustainability

[Find out more](#)

For more data driven insights about your supply chain resiliency, visit [idc.com/ap/supply-chain](https://www.idc.com/ap/supply-chain) or reach out to Theresa Rago, Vice President of Marketing at trago@idc.com.

CONTRIBUTORS



Allison Kho
Head of Marketing APAC MEA
at SSI SCHAEFER



Anthony Beavis
Managing Director APAC at
Körber Supply Chain



Nishith Rastogi
Founder and CEO
at Locus



Timothy Foote
Founder of Susymbio



PUBLISHER Peter Raven

EDITOR-IN-CHIEF Joe Lombardo

EDITOR-AT-LARGE Dr. Raymon Krishnan

DIGITAL EDITOR-GRAPHIC Marchius Nazaire

DIGITAL EDITOR-MARKETING John Kennedy M.

SALES / ADVERTISING Harjeet Chekhire
Director Partnerships
Email: harjeet@logisym.org

COPYRIGHT

All material appearing in LogiSYM Magazine is copyright unless otherwise stated or it may rest with the provider of the supplied material. LogiSYM Magazine takes all care to ensure information is correct at time of printing, but the publisher accepts no responsibility or liability for the accuracy of any information contained in the text or advertisements. Views expressed are not necessarily endorsed by the publisher or editor.

LogiSYM Magazine
50 Kallang Pudding Road,
06-06 AMA Building,
Singapore 349326
Tel: +65 6746 2250
Email: info@lscms.org

LogiSYM

The New and Game-Changing Technology Solutions Redefining Last-Mile Logistics

Feature Article by Nishith Rastogi, Founder and CEO at Locus

From stocking up your fridge with the week's groceries to purchasing the latest smartphone, the consumer has now been placed at the center of the supply chain as they pull the complete gamut of products to where they reside.

This unprecedented level of consumer convenience results from years of consistent efforts made by tech companies to make deliveries faster and less expensive. They also continue to roll out features to better the consumer experience such as customizable delivery schedules and the ability to make special delivery requests like no-contact delivery. The most obvious example is Amazon: Ac-

cording to a McKinsey article, it has spent the better part of two decades reducing the delivery times of its US-based delivery services from eight days in the 2000s to one day in 2019.

That's an 87.5% drop, and it continues to set new standards for delightful post-purchase customer experiences. As a result, the time that consumers are willing to wait for their purchases has reduced to hours and sometimes even minutes. Another consumer survey by McKinsey noted more than half of the consumers in the US would switch to the competition if they had to wait too long for the shipment of their deliv-

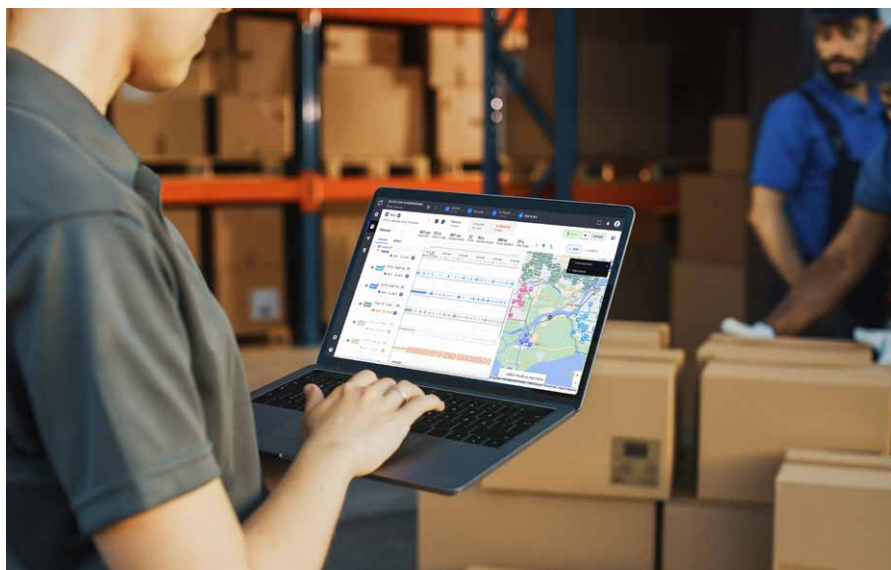
ery, a sentiment that consumers across the globe can relate to.

With such high stakes comes a unique opportunity at the last mile: A chance to stand apart in an increasingly competitive market through truly memorable post-purchase experience.

SOLVING FOR SCALE AND COMPLEXITY WITH TECHNOLOGY

These days, the press of a button on an app initiates a complex fulfillment process into action. Like a baton in a relay race, every order exchanges many hands before they reach a customer's doorstep.

The complexity of fulfilling orders grows exponentially as the number of order increase. At first glance, last-mile logistics planning boils down to finding the quickest possible route between two points. When you have two points, it is still manageable to take care of these tasks manually. But as the number of stops increases, the possible permutations and combinations make it nearly impossible for an average person to devise an optimal route to make these deliveries according to schedule.



This is where technology can play a critical role in keeping millions of customers happy with on-time deliveries and a delightful post-purchase consumer experience. Advancements in many areas such as the Internet of Things, Machine Learning, Artificial Intelligence, Big Data Analytics, among others, have shown logistics players new ways to make the last-mile fulfillment process efficient in meeting shorter timeframes at lower costs and at scale. These technology solutions harness the power of two functions to achieve growth automation and insights. Some key technology solutions include:

Geocoding solutions: The inability to accurately locate addresses is a major contributor to delays and poor consumer experience. Geocoding solutions convert fuzzy addresses into unique latitude and longitude coordinates, so that drivers can provide the seamless delivery experience that consumers expect.

Slot management: Particularly useful for home service compa-

nies, on the one hand, it allows consumers to choose the most convenient slots for the fulfillment of orders or service requests. On the other, it automates the assignment of tasks to drivers and skilled professionals to maximize the workforce's potential.

Order management: automates the order capture process, its allocation to different vehicles, and even the reassignment of returns and failed deliveries on the basis of real-life constraints. It also manages the influx orders and allocates them to the fleet in the most efficient way, and tracks and updates their status. Order management also has the ability to club together numerous different orders that fall under one particular area, thereby reducing fuel consumption.

Carrier Management: It can be a tough call to quickly decide on a reliable third-party logistics partner at reasonable rates when fleet capacity is suddenly required to be expanded to effectively deliver a huge shipment of orders.

To that end, Carrier management solutions automatically assign orders to trustworthy third-party logistics service providers based on service level agreements, location, distance, delivery priority, and cost.

Route planning: These solutions are the heart of any efficient and large-scale last-mile logistics operation. It uses advanced algorithms to come up with the most efficient route for drivers. Route planning solutions learn from millions of deliveries made in the past to make each delivery more efficient than the last. They account for hundreds of real-life constraints such as distance, traffic, roadblocks, fuel consumption, service level agreements (SLAs) etc. to create routes that help save time and reduce fuel costs by cutting down on empty miles driven. In this way, they also empower drivers to make more deliveries in a single shift.

Control Towers: These solutions provide complete visibility to logistics personnel to monitor the





status of orders and carriers in real-time, and warn of any potential SLA breaches through automated alerts. Control Towers come particularly in handy to tackle inevitable and unpredictable snags in the fulfillment process and minimize delays.

Tracking pages: They provide end-to-end visibility to consumers with turn-by-turn updates on the status of their orders. Consumers also receive alerts if the delivery has been delayed so that their expectations can be managed. These pages can also offer seamless communication channels between the customer and the driver or customer support teams for any concerns and valuable feedback that might improve their overall experience.

Analytics Engines: These solutions can analyze billions of data points to uncover hidden ineffi-

ciencies or even new avenues to grow. Businesses then use these insights to further tweak their operations to achieve efficiencies at scale, and they are readily accessible through intuitive charts, auto-generated reports, and intuitive dashboards.

THE AGE OF THE PLATFORM

Ease of use and convenience is a quality prized by not just consumers, but logistics players as well. They need to be able to unlock new levels of efficiency to be able to handle the large number of orders they receive in a day. This requires them to cut down on repetitive tasks, make sure that any new technology solutions they have onboarded are in sync with existing ones, have their notifications and alerts streamlined, and consolidate multiple views to improve the visibility of operations.

Stakeholders need to see improvements on the ground as quickly as possible. This is why bypassing the frictions of the entire product procurement process to have these solutions up and running is also highly valued. As a result, logistics technology companies are offering their product range as a platform and not individual solutions. A Platform-based ecosystem allows businesses to access solutions in a plug-and-play manner. They can easily onboard new solutions according to their requirements in a matter of weeks, as opposed to months. These solutions are available as Application Programming Interfaces (APIs) that can be easily and quickly integrated with existing Enterprise Resource Planning (ERP) software.

TO SUM UP

In a business landscape where delivery timeframes grow shorter and consumer expectations continue to rise, achieving growth would seem like a pipe dream. In fact, given the high costs of last-mile fulfillment, it has become indispensable to providing memorable consumer experiences at scale while keeping costs in check. Advancements in technology have now made it possible to bring scalable growth across all key points of last-mile fulfillment, right from order management to route planning and advanced analytics capabilities to see meaningful growth in new directions.



Nishith Rastogi

Founder and CEO at Locus

Nishith Rastogi is Founder and CEO of Locus, a real-world ready dispatch management platform enabling clients across 30+ countries to achieve last-mile excellence with over 650 million deliveries and counting. He is responsible for business expansion across geographies and heads product innovation. Before founding Locus, he worked for Amazon, where he built algorithms to counter credit card fraud. Nishith also co-founded RideSafe, a real-time route deviation detection application for women's safety. He is a published author in experimental physics and holds patents in Machine Learning.

Etihad Cargo Expands Operations in China, Offering Additional Belly Hold Capacity to Guangzhou

- ***From 10 October, Etihad Cargo will offer 30 tonnes of additional cargo capacity to China with the introduction of twice-weekly passenger services to Guangzhou***

Abu Dhabi, United Arab Emirates – Etihad Cargo, the cargo and logistics arm of Etihad Aviation Group, will reinforce its commitment to the China market with the introduction of an additional 30 tonnes of belly capacity via two new weekly direct passenger flights to Guangzhou from 10 October, subject to regulatory approvals.

With this latest addition to the carrier's network, Etihad will become the first international

airline to operate long-haul passenger and cargo services to the top three Chinese gateways since the start of the pandemic.

In July, the carrier announced the introduction of direct passenger flights to Beijing, bringing the total number of direct passenger and freighter flights for China to 15. With the introduction of an additional two direct passenger services per week to Guangzhou using a two-class Boeing 777, Etihad

Cargo will offer 1,520 tonnes of total cargo capacity into and out of China per week.

In addition to offering cargo capacity on passenger flights, Etihad Cargo also operates six Boeing 777-200 freighter flights for Shanghai and five dedicated freighter services for Hong Kong per week.

Martin Drew, Etihad Aviation Group's Senior Vice President Global Sales & Cargo, said: "Chi-





na remains a key strategic market for Etihad Cargo. The Chinese market contributes over 20 per cent of the carrier's cargo operations, and Etihad Cargo is further reinforcing its commitment to the market by expanding operations into Guangzhou. This is the latest step in Etihad Cargo's commitment to its customers, providing more capacity along key routes to enable greater cooperation between the United Arab Emirates and China."

Etihad Cargo exports a wide range of products from China

to the UAE, Europe and the US, with electronics being the most widely transported product.

Earlier this year, Etihad Cargo launched a dedicated Mandarin version of the carrier's website and booking portal, making the booking process easier for customers located in China. The carrier continuously explores opportunities to make the booking process faster and more convenient and will adapt its network to add more capacity to meet its customers' needs.



About Etihad Cargo

Etihad Cargo is the cargo and logistics arm of the Etihad Aviation Group. Since its establishment in 2004, Etihad Cargo has grown rapidly to become one of the leading air cargo carriers in the world, offering customers a range of cargo products and services to five major continents. Its hub in Abu Dhabi is strategically located at the centre of the world's busiest trade lanes, providing an integral link between Asia, Europe, North America, Australia and Africa.

In addition to general cargo, Etihad Cargo offers a wide range of specialty products including live animals, dangerous goods, valuables and vulnerables, personal effects, as well as its market leading cold chain products (the latter holding IATA's stringent Centre of Excellence for Independent Validators certifications for both Pharmaceutical and Perishables Logistics, as well as Live Animals Logistics).



Intelligent, Efficient Robotics Solution from SSI SCHAEFER Wins 2022 IFOY Award



Flat pack picking offers a unique, automated turnkey system solution from a single source to support efficient palletizing of heavy and bulky items. Replacing hard manual labor with gantry robots, poor ergonomics are eliminated to make room for a constant, and transparent material flow – featuring a high degree of scalability. The concept, developed by SSI SCHAEFER together with Inter IKEA Group, Supply Chain Development, Intralogistics, has already been successfully implemented in Germany. The innovative solution won this year's IFOY Award (International Intralogistics and Forklift Truck of the Year Award) and took first place in the market comparison in the "Integrated Warehouse Solution" category.

"This project demonstrates how we approach our customers' challenges and work with them to develop and implement innovative logistics solutions for a more ergonomic work environment and greater productivity," says Notker Steigerwald, Head of the Logistics Solutions Business Unit at SSI SCHAEFER. "We're particularly happy about the IFOY Award since it confirms the sustainability and future viability of our concept in a market comparison."

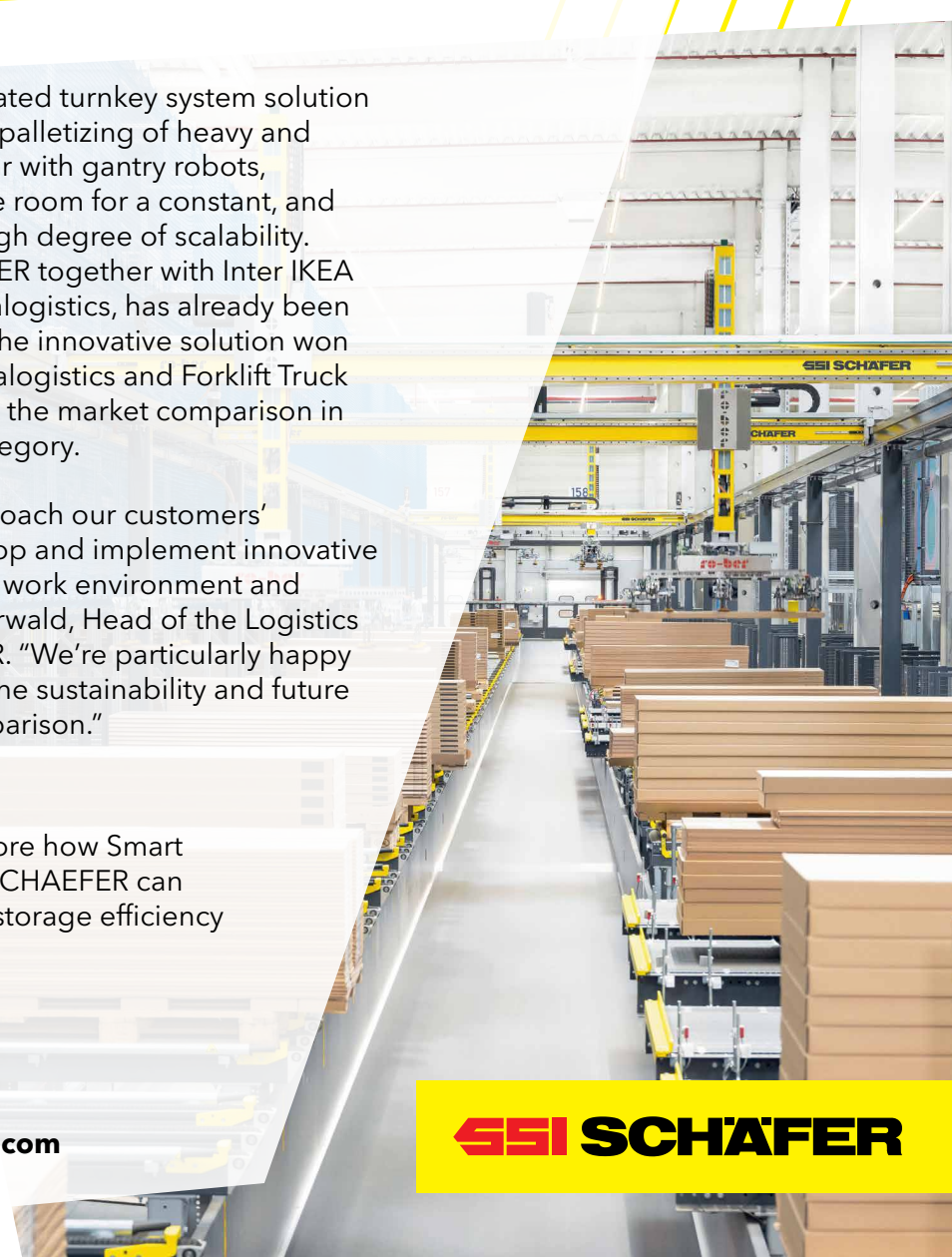


Scan the QR code to explore how Smart Robotics Solution by SSI SCHAEFER can increase your warehouse storage efficiency

Think Tomorrow.

+65 6863 0168 | info.sg@ssi-schaefer.com
ssi-schaefer.com

SSI SCHAEFER



Constantly Striving for Better Ways: Implementing an Electric Ground Fleet

By **Russell Pang**, Managing Director for Thailand, CEVA Logistics

With the advance of technology and the commitment of shippers, carriers and logistics companies, supply chains all across the world are becoming more sustainable.

As part of the CMA CGM Group, CEVA Logistics is committed to responsible trade that respects humanity and the planet. Specifically,

in acting for the planet, one way we do that is by finding better ways to transport goods via our ground fleets.

In Thailand, we are connecting consumers with Decathlon products thanks to an expanded fleet of electric vehicles. The fleet of three electric vans and two six-wheel electric trucks are

supporting Decathlon's growth in the country while reducing annual CO2 emissions by more than 100,000 kilograms.

We started working closely with Decathlon in Thailand last year, supporting nationwide ground distribution to their six retail stores at the time. Decathlon's retail presence in Thailand now counts 14 experience stores and eight "click & collect" locations.

Originally, our fleet was composed of one electric van and three conventional diesel trucks. The electric van was the first such logistics vehicle in the country, instantly providing Decathlon with a more environmentally friendly transport solution. The new, all-electric fleet is expected to operate 5,500 trips per year totaling approximately 900,000 miles. In addition, as Decathlon's operations continue to expand, so will our supporting CEVA ground fleet. We already expect to add two additional electric vans to the fleet in 2023, along with two more of the six-wheel EVO G9 electric trucks.





Co-creating value alongside our customers is central to our mission at CEVA, and the ability to use our logistics capabilities to deliver Decathlon's sporting goods will bring value and enjoyment to sports enthusiasts across Thailand. With this new fleet, we can now transport more goods in a more sustainable way. We also expect to grow our electric ground fleet in Thailand with other local customers who share our values and are becoming more interested in our sustainable ground solutions.

As part of the CMA CGM Group, CEVA is committed to acting responsibly for the planet. The Group has set a target to reach net zero emissions by 2050, and with initiatives like this, we are well on our way—a better way.



About CEVA Logistics

CEVA Logistics, a world leader in third-party logistics, provides global supply chain solutions to connect people, prod-

ucts and providers all around the world. Headquartered in Marseille, France, CEVA Logistics offers a broad range of end-to-end, customized solutions in both Contract Logistics and Freight Management in 170 countries worldwide thanks to its approximately 110,000 employees at more than 1,300 facilities. With pro forma 2021 revenue of US\$17 billion, CEVA Logistics is part of the CMA CGM Group, a global player in sea, land, air and logistics solutions.

For additional information please contact:

media@cevalogistics.com



Join our Global Readership!

Subscribe to learn what's happening in the supply chain industry from our cutting-edge information resources. Get up to date information to assist logistics executives to succeed in business.



SCAN HERE



The Age of Agility: Building Resilience in the Supply Chain

Feature Article by **Anthony Beavis**, Managing Director APAC at Körber Supply Chain

Border controls, China's zero-covid policy and global shipping costs and energy prices is putting increasing pressure on supply chains throughout the Asia Pacific region. Here, Anthony Beavis, Managing Director APAC at Körber Supply Chain discusses the critical need to strengthen supply chain resilience.

The recent business and economic disruption has shed a light on the fragility of many global supply chains. Major businesses have had to completely re-consider previous supply chain strategies that were largely centred around lean manufacturing, just-in-time delivery and reducing operating costs.

According to Geraint John, VP Analyst at Gartner, most supply chain leaders now recognise that becoming more resilient is necessary in the current environment.

"However, measures such as alternative factories, dual sourcing and more generous safety stocks go against the well-versed philosophy of lean supply chains that has prevailed in recent decades," he says.

This shifting mindset is evident in many of the recent strategy shifts seen among some of the world's largest companies. For example, Apple, now the world's largest company by market capitalisation, has been heavily impacted by the ongoing lockdowns in China.

Earlier this year, Apple CEO Tim Cook warned that the company was not immune to supply chain challenges, and declared that supply chain challenges had hurt sales by between \$4 billion and \$8 billion.

As part of the launch of its hotly anticipated iPhone 14, it has ramped up its production output in India and Vietnam as an alternative to China, with Foxconn, the

manufacturer of Apple's iPhones, announcing plans for creating 10 to 12 facilities in India.

This is likely a move that will be followed by other major Western corporates and could be part of a significant shift away from a single source of manufacturing and a move towards more diversified sourcing strategies.

Furthermore, according to recent survey by McKinsey, almost 90 per cent of respondents said they expect to pursue some degree of regionalisation during the next three years. Ninety-three per cent of respondents also stated that they intended to make their supply chains far more flexible, agile and resilient.



RESILIENCE IN A STATE OF DISRUPTION

Supply chain has arguably never been more important to the global economy than it is today, but it's also never been more vulnerable.

In today's globalised and interconnected world, any major disruption – from a disease to a fire – has the potential to cascade through supply chains and permeate other systems.

It's not just the pandemic that has led to large-scale disruption in supply chain – natural disasters, accidents, international disruptions, geo-political tensions, and currency fluctuations continue to cause major disruption in supply chain operations worldwide.

While many organisations have focused on making supply chains more efficient by reducing operating costs, lean manufacturing, just-in-time methodologies and reduced product lifecycle and outsourcing – in light of today's disruptive world, resilience has to be a major priority for any supply chain to not only thrive but survive.

However, even after the early impacts of the pandemic, many supply chains are still not equipped to manage, mitigate and respond to these disruptions in the future.

SIX STRATEGIES FOR STRENGTHENING SUPPLY CHAIN RESILIENCE

Supply chain leaders of today must balance cost and operational efficiency alongside greater supply chain resilience but rebalancing efficiency and resiliency in a disruptive world is challeng-



ing, and for many organisations increased resilience also comes with additional costs.

According to Gartner, supply chain leaders should pursue six major strategies to build greater resilience into the networks they manage. These are: inventory and capacity buffers; manufacturing network diversification; multi-sourcing; nearshoring; platform, product or plant harmonisation and ecosystem partnerships.

1. Inventory and Capacity Buffers

Increasing buffer capacity is a straightforward way to enhance resilience. Whether in the form of underutilised production facilities or inventory in excess of safety stock requirements.

2. Manufacturing Network Diversification

As seen with Apple, manufacturing network diversification is a key element of building resilience into the supply chain, and this is set to be a trend as more organisations increase agility and flexibility in their networks.

3. Multi-Sourcing

Supply chain leaders need to know their supplier networks in detail and be able to categorise suppliers not just by spend, but also by revenue impact if a disruptive event occurs.

4. Nearshoring

While regional or local supply chains can be more expensive,

they offer more control by moving the product closer to the end consumer.

5. Platform, Product or Plant Harmonisation

Harmonising technology to allow products to move seamlessly across networks and standardising components across multiple products will help to enhance supply chain resilience.

6. Ecosystem Partnerships

Collaboration with strategic raw material suppliers and external partners is vital to increase resilience in the supply chain.

HOW TO MITIGATE DISRUPTION

Preparation is key to reducing the impact of disruptions, and organisations are becoming more aware of what needs to be done to mitigate risk and increase agility. For many, being future-ready means transforming their strategy, their technology, and their level of collaboration with the supply chain ecosystem.

There are several crucial components to driving resilience and business integration is absolutely essential. When all areas are connected and invested in one future-driven goal, it improves an organisation's ability to meet customer expectations, while reacting to internal and external challenges.

ADVANCED TECHNOLOGY TO DRIVE GREATER RESILIENCE

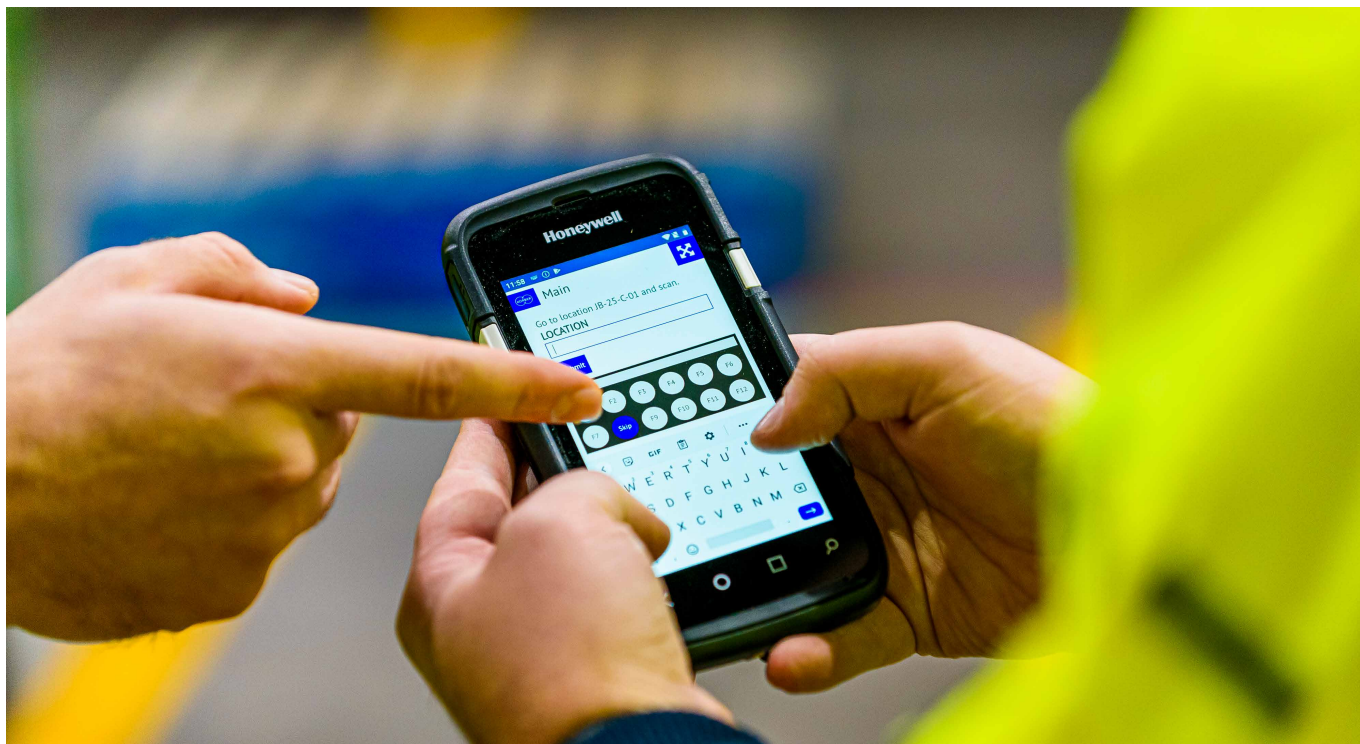
Technology also plays a huge role in building supply chain resilience. By reducing manual tasks, planning and sales servicing, technology helps businesses adapt faster and more effectively. It most notably helps them react more rapidly to changes in demand, overcoming industry labour shortages and training issues.

Many organisations in the APAC region are working with Körber to use advanced technology to drive efficiency and resilience. One example is voice-directed-work (VDW) – a highly flexible system that works by directing staff to the location of a product through a headset.

After the item is picked, the employee speaks into the mouthpiece to pass the necessary information back into the system. Since the user has their hands and eyes free, they can complete the task more productively and more accurately. VDW also reduces the training burden, since most of it is provided through the headset in real time.

A central aspect of any integrated warehouse operation is a warehouse management system (WMS), connecting all technology and processes within the warehouse. The WMS allows for more detailed planning to be undertaken, meaning that many last-mile issues can be measured and resolved. Often used to monitor and control resources and goods dispatch speeds, sort picking lists, and assign priority items to different shipments, this software is critical to ensuring an operation is flexible and agile and therefore resilient.





Another crucial software system is the transport management system (TMS). Linked to the WMS, the TMS coordinates transport with the rest of the operation.

With enough data from WMS and TMS – ideally including data from the wider supply chain as well as the internal operation – businesses can bring powerful analytics capabilities into play. Adding AI to the system allows businesses to analyse historical data and make predictions, improving agility and resilience. The same computer intelligence can also be used to optimise the sourcing and onboarding of new suppliers.

COLLABORATION AND INNOVATION THROUGH PARTNERSHIPS

Building resilience into the supply chain must also include an element of collaboration with the wider supply chain ecosystem. Breaking down barriers between different businesses is essential to establishing trust, transparency,

and accountability. It also unlocks a wider pool of data and technology, to drive more efficient, agile, and robust business models.

As supply chain complexities increase, so do opportunities for disruption. In this challenging environment, only businesses with the capacity to scale and adapt will prosper.

Through the introduction of new processes, technology, and partnerships, business can build the resilient systems necessary to overcome any crisis. These will be the productive and profitable supply chain business models of the future.



Anthony Beavis

*Managing Director APAC at
Körber Supply Chain*

Anthony Beavis, Managing Director for Körber Supply Chain ANZ joined Körber Supply Chain Software in 2021. He is a highly respected leader in the market with more than 20 years of international experience in the logistics and supply chain industry. Previously, he held leadership positions at global manufacturers, national distributors and solution providers in Australia, New Zealand, and Canada. Examples include positions at Dematic and Honeywell, where he was part of the ANZ Voice Solutions executive team. Anthony has a proven record of successful change management, developing new business and motivating teams to exceed their targets.

Xeneta Raises \$80 Million led by Apax Digital

Investment to Fuel Expansion of Xeneta's Breakthrough Container Shipping & Air Cargo Market Analytics Platform

POSLO, Norway – September 13, 2022 — Xeneta, the leading ocean and air freight rate benchmarking and market analytics platform, today announced an \$80 million investment at a \$265 million valuation led by funds advised by Apax Digital, the growth equity arm of Apax, a leading global private equity advisory firm, with participation from NY-based Lugard Road Capital. With this investment, Xeneta will accelerate investments in platform development and continue scaling its global commercial teams. This will support expansion into new markets as companies seek to develop resilient supply chains to counter global trade volatility.

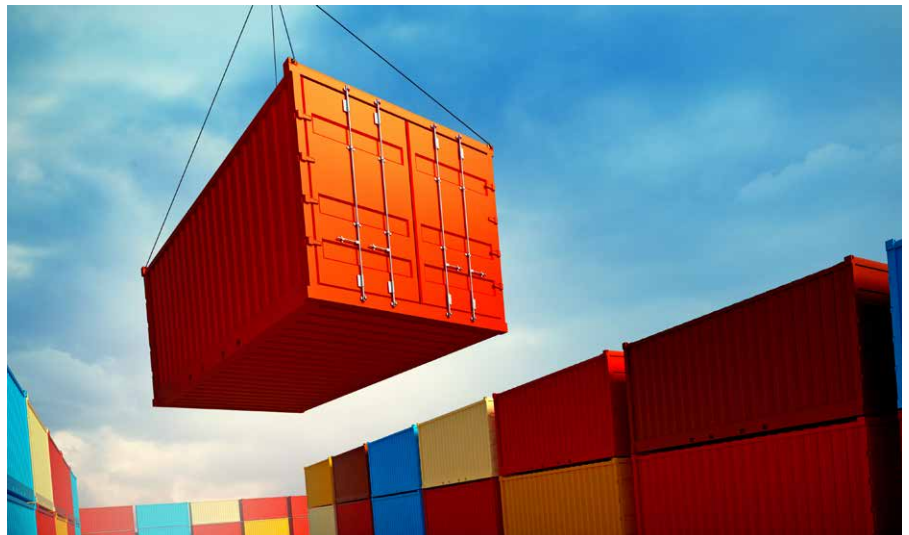
A global pandemic, geo-political uncertainty, and climate-related events have led to an unpredictable market where supply and demand continue to shift, leaving supply chain, logistics, and transportation professionals scrambling for visibility. As organisations undergo efforts to navigate instabilities in the market, access to readily available and actionable freight rate data has emerged as a strategic priority. In this new context,

ocean shipping and air cargo transportation costs have been elevated to company board-level discussions. Additionally, in an increasingly data-driven world, procurement, finance, and other corporate functions cannot operate effectively without data that is fit for purpose.

Xeneta stands in stark contrast to other shipping rate and index solutions by providing organisations with the world's largest, neutral and most accurate data source of real-time, on-demand ocean container and air freight rate market intelligence, whether for long-term contracts or spot trades. The Xeneta platform delivers the one-two

punch that modern companies look for in digitizing their overall freight procurement or selling operations by providing access to an unrivaled amount of rate data (with 10 million rates added a month), as well as incorporating advanced analytics and visualisation. The all-in-one platform delivers further value by providing data and insights on capacity, reliability, blank sailings, detention and demurrage, dynamic load factor, emissions data, and more.

Xeneta's novel crowdsourced approach levels the playing field for ocean and air freight buyers and sellers offering benchmarking, tendering, budgeting, plan-





Left to right: Niall van de Wouw, Chief Air Freight Officer; Patrik Berglund, CEO; Paul Mullins, CRO; Katherine Barrios, CMO; Erik Devetak, CPO; George Thomas, COO

ning, and reporting capabilities. Amidst global supply chain and logistics challenges, Xeneta's intelligence ensures that companies' cargoes get to where it needs to be, when it needs to be there, all at the right price.

"While global trade tries to get back on its feet after a couple of years of uncertainty, it's clear that the overall logistics industry requires a re-think of how freight is bought and sold. This new funding will help us accelerate development of our platform and add even more datasets to enrich our expert industry analyses to further drive transparency in the market," said Xeneta CEO and Co-founder Patrik Berglund. "We are proud to have a renowned global fund like Apax Digital and its expert operational team to work alongside us as we enter our next stage of growth."

Mark Beith, Partner at Apax Digital, who joins the company's Board of Directors, said:

"Buyers and sellers of freight have been flying blind in a complex and opaque market. Xeneta's world-leading dataset and cutting-edge platform provide unique access to granular real-time information and insight,

enabling data-driven freight sales and purchases. This delivers compelling value for their blue-chip customer base – not just in sales or procurement, but also in budgeting and reporting, and increasingly in ESG monitoring. We're thrilled to partner with Patrik and the Xeneta team and help deliver their vision."

Xeneta's customer portfolio includes amongst others: Electrolux, Unilever, Nestle, Zebra Technologies, Thyssenkrupp, Volvo, General Mills, Procter & Gamble, and John Deere.

XENETA

About Xeneta

Xeneta is the leading ocean and air freight rate benchmarking and market analytics platform transforming the shipping and logistics industry. Xeneta's powerful reporting and analytics platform provides liner-shipping and air cargo stakeholders the data they need to understand current and historical market behavior, reporting live on

market average and low/high movements for both short- and long-term contracts. Xeneta's data comprises more than 300 million contracted container and air freight rates and covers more than 160,000 global trade routes. Xeneta is a privately held company with headquarters in Oslo, Norway, with regional offices in New Jersey, USA, Hamburg, Germany, and Copenhagen, Denmark.

Apax

About APAX Digital

The Apax Digital Funds specialize in growth equity and growth buyout investments in high-growth enterprise software, consumer internet, and technology-enabled services companies worldwide. The Apax Digital team leverages Apax's deep tech investing expertise, global platform, and specialized operating experts, to enable technology companies and their management teams to accelerate the achievement of their full potential.



About APAX Digital

Apax Partners LLP ("Apax") is a leading global private equity advisory firm. For 50 years, Apax has worked to inspire growth and ideas that transform businesses. The firm has raised and advised funds with aggregate commitments of more than \$60 billion. The Apax Funds invest in companies across four global sectors of Tech, Services, Healthcare, and Internet/Consumer. These funds provide long-term equity financing to build and strengthen world-class companies.

A Conversation with **DON TENG**

Managing Director
at OMRON Asia Pacific

by Dr Raymon Krishnan -
Editor-at-Large, LogiSYM Magazine



Headquartered in Kyoto, Japan, OMRON Corporation is a multi-billion-dollar, diversified company with business units producing industrial automation products, device & module solutions, health-care, and social system solutions. The company is a global leader in the Industrial Automation business providing complete automation solutions for various industrial applications. It brings innovation to manufacturing sites through its innovative-Automation comprising of "Integrated", "Intelligent" and "Interactive" concepts with one of the world's most sophisticated and wide product range encompassing panel components, smart sensors, Vision technologies, PLCs, Servos, Drives, Robots & Cobots and Machine safety solutions.

In APAC, the concept of innovative-Automation has made OMRON create immense value for the manufacturing segment by solving varied issues in multifarious sectors such as automotive, food & beverage, FMCG, digital

and logistics to name just a few. It strives to support manufacturing innovation with its unique sensing & control technologies and caters to customers situated in 8 countries in the region via its strong and wide network of offices, application capabilities, service and sales engineers supported by an automation technology centre (for demos and Proof of Concepts), training centres

as well as channel partners to address the ever- challenging requirements.

At the helm of the business in the region is Mr. Don Teng, whom LogiSYM's Editor-At-Large, Dr. Raymon Krishnan, managed to catch up with recently to talk about OMRON's journey to date and future plans.



OMRON LD-series working on material transportation.

1. Would you tell our readers a little about your background and experience and what are some of your greatest achievements?

I started my professional journey more than 30 years ago as an Equipment Engineer with a Semiconductor Equipment Manufacturing. Fascinated by the world of industrial automation technology. My enthusiasm and passion for automation made me foray into other aspects of the industry such as product management, marketing, and eventually overall management.

Inspired by the concept of creating harmony between men and machines, I strongly believe in the cause of ensuring worker's safety when they work with machines and have been actively engaged in propagating it as a regulatory initiative amongst the right stakeholders in Singapore.

Apart from spearheading the automation business in the APAC region, I have also sought to amplify adoption of

innovative-Automation amongst FMCG packaging solutions manufacturers in Indonesia by enabling them to become more sustainable through innovative ways of recycling and reducing packaging materials.

2. We understand OMRON is a well-known player providing automation solutions to many sectors like Automotive, Food & Commodity, Digital, Medical, etc. Why the focus on Logistics at this point in time?

Since 2016, OMRON has solved the manufacturing issues of varied sectors through realizing its unique manufacturing innovation concept of innovative-Automation. The company is now looking ahead at the next decade and aims to go a level up and reinvigorate the innovative-Automation concept.

This scale up is in sync with the transformation being witnessed by the manufacturing world. Currently, manufacturers around the world are facing many complicated challenges to renew

and evolve their manufacturing with the requirements of the post-COVID world. In addition to responding to these technological innovations and changes in products and manufacturing methods, manufacturers' emphasis is placed on the transformation of manufacturing processes that takes into consideration the global environment that is seeing addition of many more aspects such as Social Development Goals (SDGs), diversification of people's values, and the wellbeing of their employees.

The renewal of our innovative-Automation manufacturing concept means we aim for on-site innovation by embodying three capabilities: "Autonomation beyond human abilities," "Advanced collaboration between people and machines," and "Digital engineering transformation" in many segments and not just restrict ourselves to the ones we are already good at, or we have developed a forte. This means we are all set to expand ourselves to explore newer segments such as logistics and environment friendly or new energy vehicles along with going deeper in our existing areas - digital, medical, FMCG and the like.

Hence, as we look ahead to broaden our horizons in order to realise this long-term vision of innovative-Automation, we have identified Logistics as a new and promising segment. With a CAGR% of >14% growth in Asia Pacific region according to Logistics IQ research, we strongly feel it would not only contribute significantly to our business in terms of growth opportunities



OMRON MoMA(Mobile Manipulator) working on packing process.

but also will give us immense scope to solve more issues that supply chain players are faced within the post pandemic world like addressing labour shortages and stepping up to the mass customisation needs of the industry. Inspired by OMRON's philosophy of solving real problems together with our customers so that we accelerate our growth mutually through Innovations driven by social needs, we strongly believe that we are at the right time and the right place to enter the logistics segment.

3. What potential does Industry 4.0 holds for transforming the Logistic industry?

Industry 4.0 is making many changes across business models and their production chains supporting them. Many of these changes are disruptive in nature and logistics, which is the fundamental and one of the most important constituents of these processes, is bound to get impacted by these significant changes. This is already evident with the changing dynamics around speed, magnitude, and depth in the segment. All this necessitates advanced, technology led applications delivering interconnected and real time information and super optimized time and resources, highlighting immense potential of Industry 4.0 for value generation in the logistics industry to maintain competitiveness.

Also, in recent years we have worked tirelessly to realise automation of manufacturing sites by "integrating" high-speed and high precision control application

technologies, making full use of IoT and AI to create "intelligent" equipment and production lines, and achieving "interactive" harmonization between people and machines.

Endowed and empowered with this knowledge in understanding production line optimisation, we believe we can map this knowledge into the logistics environment. We can leverage the usage of edge-sensors, using our expertise in installing and providing this type of "component" to extract data helping 3PL/supply chain owners to digitise and optimise to improve productivity and efficiency in supply chain workflows and operations.

4. How do you visualize the current adoption of Industry 4.0 in the Logistics industry in the Asia Pacific region?

The trend is definitely very positive and enthusiastic indicating a bright future for the automation solutions providers for the logistics industry in APAC. From that same IQ Research report, the demand for warehouse automation equipment is expected to grow with a CAGR% of >14% for the next 5 years with even higher growth in sub-countries in the APAC region in both developed and emerging countries.

The acceleration of adoption of automation in the post COVID world, shortage of warehouse resources and skilled labour are few of the more important factors that will fuel this growth at least for the next three to five years. Most of the APAC markets are non-homogeneous in terms

of the level of automation needs, their knowledge and maturity are also diverse. Hence, we feel it would be an enriching challenge for OMRON to solve real problems of the supply chain management sector and generate real value through our innovative-Automation based solutions.

5. APAC is a very diverse region. Are there sub-geographic differences in the adoption of Industry 4.0?

The APAC ecosystem and dynamics is non-homogenous. We cater to around 8 countries in the region. Some of them are emerging and some are developed. The level of adoption of industrial automation is far from being consistent giving rise to multifarious, unique, and complicated business challenges. For instance, in some emerging countries, we must cater to the needs of basic digitisation to capture real data. This is necessary to understand the needs and optimisation levels before moving into full-fledged solutions. While in developed countries that have embraced innovation, we need to convince the stakeholders to balance between ROI (return-on-investment) and innovation to make life better for workers. We see that especially in developed countries, who are higher up the automation curve where the end-customers are more open and willing to take automation to the next level, for example realising applications like having platforms to track productivity in each workflow & operation and having robots travelling into elevators for multi-level operations, etc.

6. What are the challenges the logistics segment is facing in terms of adoption of I 4.0? What are the opportunities and trends in store?

One of the key challenges that we can identify is the initial capital expenditure required to make the digital pivot. Although the value that will be unlocked is manifold, the time and cost are primary concerns. This is where OMRON aims to create a difference and bring value by playing the role of a true automation partner, taking a consultative approach to ensure a tailor-made plan to suit an existing facility in the best possible manner. The advance proof of concepts and digitalization tools we use, enable our customers to visualize the system and its benefits beforehand.

Looking ahead, intralogistics is expected to move towards data and analytics to identify gaps and bottlenecks in warehouse operations. Most organisations pursue it actively to seek improvement in productivity and efficiency. With the use of more data analytics and AI inside the warehouse, we can also expect a very healthy growth in deployment of robotics & AI solutions- ranging from WMS integration (perhaps through cloud) to multiple modes of material transfer (both horizontal and vertical), automated cross-docks, picking, sorting, packaging, etc. More usage of smart 3D vision, deeper exploration into assets traceability using GPS/5G both within and outside the warehouses is also on the cards.

Relying on our level of expertise and overarching knowledge from manufacturing to Logistics, we sense a vast opportunity for OMRON to take deeper plunge and to leverage on these trends.

7. Importance of sustainable supply chains and how automation can help here?

From replacement to collaboration, the manufacturing world has been witnessing a significant transition in the human-machine relationship over the last few decades. One of the primary characteristics of this evolution is the merging of boundaries between factories and society necessitating the transition from collaboration to “harmony between people and machines” in the manufacturing sector.

With climate change and unprecedented situation from COVID, consumption orientation is getting replaced with sustenance orientation. The makers are now pondering over social needs, more than ever, rather than only industry and production-based needs. All this, in turn, is demanding the data efficiency driven systems to do more by transitioning to knowledge driven systems thus delivering more sustainable results and sustainable entities.

Keeping in view this transition towards sustainability, OMRON has outlined its direction as “Empowering people through automation” for its next long- term vision- “Shaping the Future 2030” (SF 2030). For the automation business, we will undertake deployment of

innovative-Automation concept to bring in more technological innovation and enhance respect for the environment too because we believe both are essential for manufacturing & production sites. We feel that if we do this right, we will be able to contribute to a sustainable future based on harmony between people and machines.

8. How is OMRON striving to capitalise on these trends and enhance the adoption of automation in the logistics / SCM segment?

We are dedicatedly working towards highlighting the value created by OMRON in the segment to the stakeholders by showcasing the utility of our solutions and the potential it holds to solve current and future challenges through co-creation and co-development.

One of the important endeavours here is to set up exclusive facilities such as Logistics 4.0 Solutions Development Centre to showcase OMRON solutions so that customers will be able to experience real time how our solutions could benefit them and have a productive discussion with us on how we can help them automate their warehouses and other facilities integrated in the whole supply chain. It will also help us strike a chord with like-minded organisations to curate conceptual designs and PoCs (proof-of-concepts) through co-development and co-creation of solutions making us reach the next important step of industrializing and commercialising the solutions.



OMRON HD-2500 transporting pallets from point-to-point.

9. What are the future trends for logistics industry in Intralogistics?

Traditionally, the logistics industry in intralogistics has been a very labour-intensive field requiring many skilled workers. For example, forklift drivers, pickers, packers, quality inspectors and so forth, etc. Over last few years, the warehouse operators owners have been feeling pressured by their end-customers to improve efficiency and productivity with less human errors and goods returns. This can only be achieved with enhanced automation processes in warehouses.

Hence, the segment has started deploying robotics automation more intensely to replace YoY skilled labour demand and to deal with the steadily declining availability of manual workforce at the warehouses. Robotics also aids in automating various workflows in material transport, storage, picking, sorting and packing.

This trend makes us believe that the adoption of robotics solutions across warehouses is expected to increase over the next 3-5 years contributing towards the growth of the warehouse automation segment.

The future will also have in store see the advent of more dark warehouses. Digitisation upstream with full integration of WMS with ERP and also deeper data analytics to analyse the efficiency and productivity of warehouse workers, and all workflows to optimise throughput.

OMRON is quite upbeat on about this trend. We offer solutions into all these workflows by working closely with partners to address the customers' needs. Empowered with our wide breadth of robotics solutions and strong expertise in automation, we aim to explore and make further inroads with the right partners into niche areas of warehouse automation

- automated container loading, unloading, vertical storage and picking optimization to name just a few. These areas indicate real gaps and challenges in intralogistics which we feel have the most potential for automation.

10. What is OMRON's long term vision in APAC?

Based on our global vision for the industrial automation business – "Enriching the Future for People, Industries and the Globe by Innovative Automation", we aim to translate it in the APAC region by working together with the customers and partners to solve the issues of the manufacturing industry.

Strongly believing in creating human-machine harmony at the shop floors, we will continue to bring in advanced ILOR+S (Input, Logic, Output, Robotics and Safety) solutions based on our futuristic concept of innovative-Automation for solving innumerable issues at the shop floor ranging from productivity to quality, speed to safety.

Our long-term vision - Shaping The Future 2030 (SF 2030)- takes into cognizance account the fast changing, dynamic, diversified, and complex world of manufacturing led by Industry 4.0 and digitisation in the APAC region. We believe that with our unique automation capabilities based on human machine harmony, we will be able to contribute towards creation of sustainable and innovative factories coexisting with the environment and wellbeing of people.

FreightAmigo Collaborates with National Postal Services Worldwide to Launch AmiGo Post

Providing enhanced postal services with more efficiency and economical rates for Cross-border eCommerce companies and online retailers with a new one-stop logistics solution

Hong Kong — 11 August 2022

— As tightened capacity and increased demand in the logistics industry continue to surge prices, cross-border eCommerce companies and online retailers are under intensified pressure to continue delivering the same level of service while staying economical. To support these businesses as we approach the critical period for logistics this year, FreightAmigo, a pioneering one-stop digital supply chain finance eMarketPlace, launched AmiGo Post, a new dedicated solution that provides a one-stop logistics solution tailored for cross-border eCommerce companies and online retailers in Hong Kong.

In collaboration with Australia Post, PostNL, Royal Mail and Singapore Post, AmiGo Post offers digitally activated, economic and efficient delivery services to key business locations in Asia, Australia, New Zealand, Canada, Europe, the United States and the United Kingdom. Through these partnerships, AmiGo Post is estimated to create 35%

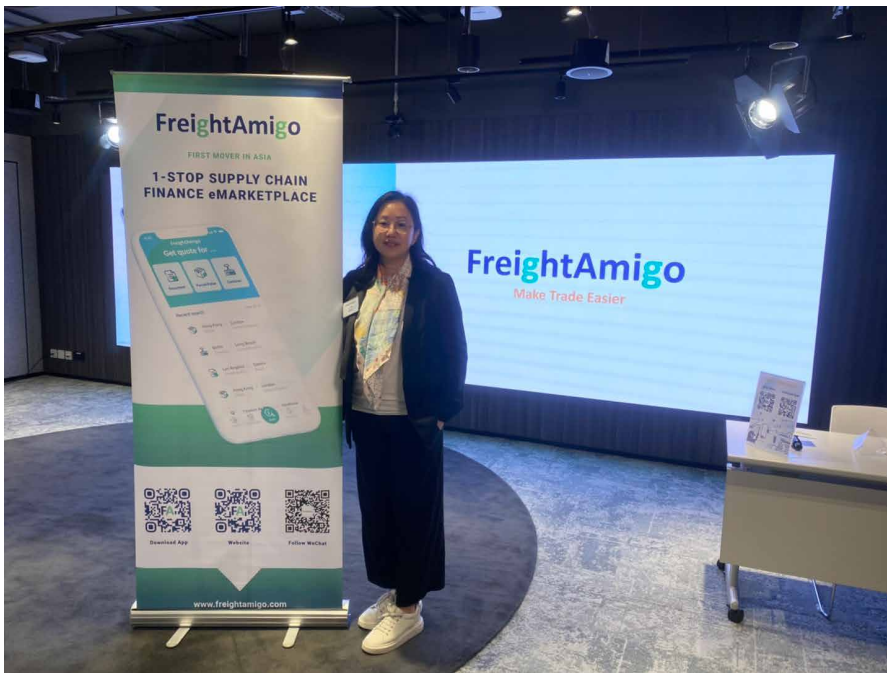
cheaper average shipping costs compared to the market and faster delivery for cross-border eCommerce companies and online shops. Furthermore, AmiGo Post's entire digitalised processes and door-to-door collection will also enable customers to save valuable administration costs and time, and fulfil delivery orders faster. AmiGo Post's end-to-end online tracking also allows customers to get clearer visibility into the delivery process.

Commenting on the launch, **Ivy Tse, Co-CEO and Co-Founder at FreightAmigo**, said, "We believe freight rate and time are both important costs of international logistics, being one of the greatest impacts on our customers' ability to meet market demands swiftly. The launch of AmiGo Post provides a one-click leased-line delivery tailored to the needs of our customers, so that they can shave valuable time from logistics efforts. Our postal collaborators across Asia, America, Europe and the United Kingdom, solidify our ability to

offer customers faster and more cost-effective international delivery options, so that we can simplify trade and support local businesses during this critical time."

The Hong Kong eCommerce industry has seen exponential growth since the pandemic. As more retailers adopt digitalisation, it has propelled the industry into a higher growth trajectory





Ivy Tse, Co-CEO and Co-Founder at FreightAmigo

and eCommerce in HK is anticipated to grow at a compound annual growth rate (CAGR) of 8.7% from 2022 to 2027.¹ The introduction of AmiGo Post comes at an essential time to save valuable time and costs for businesses, combining FreightTech, FinTech and InsurTech, into a single platform to easily manage shipping, customer clearance, cargo insurance, credit insurance and trade finance. Other key features of AmiGo Post include AI-backed routing suggestions for instant, accurate and smarter quotations, end-to-end digitised processes to improve efficiency when organising documents, tracking labels and commercial invoices, and door-to-door collection for increased convenience, among more features.

Ivy continues to say, "As we enter the height of seasonal logistics activity, the launch of AmiGo Post and the development of further FreightAmigo services will support local eCommerce

companies and online retailers, as well as other SMEs, to capitalise on advanced logistics to maximise the potential of the peak season and further facilitate their business growth post-pandemic. We look forward to continually evolving our services and supporting local businesses to see success."

Additional functions of AmiGo Post are expected to be available later this year, that includes:

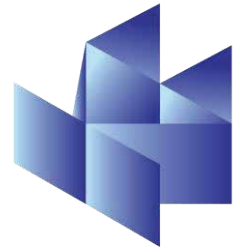
- Integration with key eCommerce platforms to provide companies and retailers with seamless connections to major online stores, further improving the efficiency of international shipping.
- Bulk order processing through excel templates to save administration time and cost and create smoother and swifter logistics management.

FreightAmigo

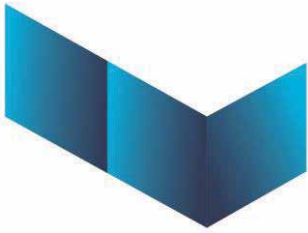
About FreightAmigo

FreightAmigo is a full-service, one-stop digital supply chain finance platform that helps organisations, enterprises and individuals transform and redefine the way they experience logistics, while fostering a unique TradeTech ecosystem. Recognised as a "first mover" and industry pioneer in Asia-Pacific, FreightAmigo combines artificial intelligence, big data, FreightTech, FinTech, InsurTech and GreenTech together on one platform to accelerate logistics, information, and cash flow, ensuring a hassle-free and enjoyable logistics experience. Today, the platform has a regional presence in Hong Kong, mainland China and Singapore, with more to come in the future as the group continues to expand its footprint and ecosystem globally, creating a new path for businesses and individuals to grow and ship.

Digitize with



KEYFIELDS
surpassing excellence



LOGON
logistics online

Warehouse, Transport, Freight, Container Yard & Container Operations



Drowning
in
Paperwork?

Warehouse, Transport, Freight, Container Yard & Container Operations

Contact Us at +65 6842 7886 or scan this QR code for more information regarding iLOGON.



Largest Pharmaceutical Facility in the Kingdom of Saudi Arabia

Middle East's First Smart Logistics Pharmaceutical Distribution Centre

Special Feature by SSI SCHAEFER

VISION 2030 – The Kingdom of Saudi Arabia is the largest country in the Middle East, with a land area of 2,150,000 km². It is not only home to the world's largest sandy desert, but also a region that is undergoing a visionary transformation. In 2016, the Kingdom unveiled a roadmap named 'Vision 2030' – an aspiring blueprint to usher in a new era of diversification and opportunity for Saudi Arabia. One of its primary themes is to create a vibrant society that is proud of the national identity and believes in the empowerment of the country's social and health-care system.

In the pharmaceutical and medical supplies sector, Nahdi Medical Company (Al-Nahdi) is the lead-

ing chain of Saudi retail pharmacies and manages and operates a nationwide network in over 140 cities and villages (over 1150 pharmacies) across the Kingdom. Al-Nahdi devised a long-term strategic plan to fuel the vision of turning the Kingdom into a global logistics hub.

In March 2022, Al-Nahdi launched the first automated pharmaceutical distribution centre located in Jeddah Second Industrial City, Al-Nahdi Distribution Centre (IM-DAD). Covering an area of 250,000 m², the advanced facility features temperature-controlled logistics and uses cutting-edge technology and systems to automate the order fulfilment process.

To ensure medical security in accordance with the latest international standards and Saudi Food and Drug Authority (SFDA) best practice regulations, the facility was developed in cooperation with the Saudi Authority for Industrial Cities and Technology Zones (MODON) as the first smart distribution centre in the retail sector for Middle East and North Africa (MENA).

DATA PAVING THE WAY TO A WELL-CONNECTED HEALTHCARE SYSTEM

Data is power – Many successful organizations establish their footprint into robotics and automation through the power of data. It generates insights and exposes gaps for improved performance, higher efficiency and profitability. In the same vein, Al-Nahdi's digital transformation has yielded a significant sum of investments in their capabilities, particularly with strong logistics analytics system. Within the last decade, business-to-business and e-commerce consumerism have largely influenced Al-Nahdi's present logistics infrastructure capabilities. Advanced and sustainable logistics operations are hence required to supply the kingdom's demand for pharmaceutical supplies.



Saudi Arabia's fastest-growing omnichannel health platform, Nahdi Medical Company

Al-Nahdi understood that in order to enhance warehouse material flow process to support their omnichannel platforms, the warehouse not only requires comprehensive data analysis and design consultancy but choosing the right intralogistics partner is equally as important. Al-Nahdi partnered with SSI SCHAEFER to create a bespoke system concept to fit the requirements – a future-proof strategy to ensure the reliability in the warehouse logistics performance.

Al-Nahdi focused on optimising the following stages:

- Decanting – Goods receiving and replenishment
- Shuttle storage – Goods-to-person picking and Pick by Light replenishment
- Empty storage and shipping totes buffer – Automatic stacking and de-stacking of totes
- Storage area – Big and bulky and small and regular items
- Shipping preparation – Automatic tote closing and labelling
- Shipping sortation area

SSI SCHAEFER's proprietary logistics software, **WAMAS®**, was



Process of optimised warehouse flow with the right logistics infrastructure

considered the perfect fit for Al-Nahdi's existing cloud computing software. The seamless integration into their intralogistics structure provides an overview of the entire material flow in the warehouse to optimise transport paths and achieve shorter picking times.

With this facility, Al-Nahdi has the objective to not only ensure world-class services but would also provide higher efficiency standards, accurate reporting, and quality customer service as well as system modularity and be ready for future expansion within the same facility.

"We chose SSI SCHAEFER because of their extensive experience and over 18,000 project references within the pharmaceutical industry," said Senior Supply Chain Excellence Department Manager of Nahdi Medical Company, Eng. Abdelwahid H. Ahmed. He continued to highlight the facility's strategies to tackle increasing demands and challenges by – devising a plan to prioritize space utilization, improve cost effectiveness, customer satisfaction and time management in the distribution centre.

PROJECT GOALS

- Incorporate cutting-edge technology through automation into machines and operations for project optimisation.
- Deliver products with utmost accuracy, quality and highest possible speed to customers.
- Optimise costs and space efficiency through the automation of specific workloads.
- Integrate systematic workflow for increasing number of pharmaceutical products.
- Ensure system expandability and flexibility to cater for further demands in the future.



Al-Nahdi Distribution Centre (IMDAD) has a capacity of picking almost 100,000 order lines and over 5,500 shipping totes per day with the automated systems.

STATE-OF-THE-ART WAREHOUSE AUTOMATION

The main goal of Al-Nahdi's IM-DAD is to automate its warehouse facility, from goods receiving, storage, conveying and picking operations way up till handling and shipping stage. That means that everything needed for an order is collected in a single pass smoothly, and it is not necessary to perform a secondary sortation or consolidation.

OPTIMISED PATH-PICK-COMPLETE

The facility is divided into two picking areas segregated by speed for fast-moving goods and relatively slower moving goods.

Pick by Light System

Piece picking via a carton live storage system, also known as KDR allows the pickers to pick the items via a gravity-fed order picking method. Coupled with Pick by Light and conveyor systems, this process eliminates picking errors due to high quality standards and boosts efficiency. On



Picking process from Advanced Pick Station

the other hand, productivity is also enhanced as each one of the Pick by Light stations (64 in total) has a worker stationed, ready to pick the fast-moving goods. Every storage compartment contains a signal lamp with a display and acknowledgment button. When an order tote reaches the picking station, the lamps for all products to be added to the tote illuminate to show the picker the correct compartments to pick from and the display indicates the correct number of articles to be picked. The pick removal is then confirmed

with an acknowledgment button. The completed tote is sent to the shipping area via a conveyor where it is automatically closed and strapped securely.

A Fully Automated Storage Shuttle System

By tailoring the SSI Cuby shuttle system to the conveying systems in the warehouse area and the connected goods-to-person workstations, thousands of products that are stored in the totes are easily processed. Shuttling the totes via a double-deep storage system, the SSI Cuby finds the correct items quickly and delivers them to the pickers.

The system is designed to accommodate different types of medical items and to locate highly sensitive and flammable items in specific storage areas.

The combination of the Pick by Light system and the SSI Cuby system, allows optimised daily picking capacity to almost 100,000 order lines and over 5,500 shipping totes since the pickers do not need to walk down endless aisles to locate the products. The SSI



The worker in-charge is attending to one of the 64 Pick by Light workstations.

Cuby shuttle system is also used as a storage space for replenishments for the KDR via the conveyors and this fully automated storage system can be expanded as desired.

"In the midst of a pandemic where safety management measures greatly reduce the available manpower, transformation and automation are key – not only for higher productivity with fewer human labour, but also greater accuracy and an optimised material workflow," elaborates Ayman Alamar, Country Manager at SSI SCHAEFER Kingdom of Saudi Arabia.

A Temperature-Controlled Warehouse that Supports Energy Saving

With a built-up area of 80,000 m², Al-Nahdi's facility is temperature-controlled within an identified storage area.

In this environment, SSI SCHAEFER channel system – SSI Orbiter® system provides high-density storage capacity for 37,260 goods-to-person pallets with specific picking tunnels. The modular design, factory assembled components and a frequency-controlled drive system allow flexible internal transport and ensures optimised material flow between receiving, warehouse, picking and shipping. It is designed to handle the demanding conditions required by the business operations of a pharmaceutical hub including big and bulky items. Once an operation has been completed, the shuttle vehicle automatically returns to the docking station. The system has the capacity to withstand cold chain conditions up to -28°C which makes it highly suitable for deep-freeze applications.



A tote on the roller conveyor that is strapped nicely, ready to be shipped to consumers.



SSI Cuby Shuttle System as a smart solution for fully automated storage of containers and cartons.

SMART SOLUTIONS – CAPABLE OF HANDLING 200 MILLION UNITS ANNUALLY

Al-Nahdi is competent in tackling challenges and seizing opportunities that have arisen from the pandemic. Customer satisfaction has further improved thanks to



SSI Orbiter® system as a smart solution for pallet handling and channel storage efficiency maximisation can handle more than 100 different pallet types.

automation which results in faster delivery time for their orders of pharma and healthcare goods and better service levels, because employees' morale is boosted with the help of technology for routine tasks.



You can benefit from exceptional time savings especially for chilled and deep-freeze applications.

Holistic Management of Fulfilment Performance Indicators

Al-Nahdi relies on the WAMAS® warehouse management system from SSI SCHAEFER to gain a holistic and transparent view of the whole fulfilment operations to better manage their material flow processes, resources and stock levels and to ensure efficient warehouse operation. WAMAS® is able to track goods across all stages - from product receiving and decanting, picking, conveying, automatic tote closing, labelling and strapping, to sortation

and presentation for shipping. WAMAS® The WMS combines all intralogistics components, including Al-Nahdi's cloud computing software into one intelligent system.

ENHANCED CUSTOMER SATISFACTION & AIMING TOWARDS VISION 2030

Ergonomic and Efficient System

The visibility of material flow through the WMS enables easier tracking of the increasing variety of pharmaceutical products. The

total lead-time of goods to reach customers has been reduced from three days to three hours, without comprising on product and service quality. By integrating both the innovative software and hardware, Nahdi Medical Company is moving one step closer to achieve its goal of contributing to the Kingdom's future Vision 2030 through strong integrity, enhanced productivity and improved performance.

"IMDAD will be the largest logistics Distribution Centre in the Middle East in the pharmaceutical industry designed to guarantee medical security in accordance with the latest international systems and to reflect Al-Nahdi's role as an effective partner in supporting Vision 2030. With SSI SCHAEFER's vast experience in the region, on-the-ground engineering and after sales capabilities to provide complete solutions, adding value to its customer's specific needs and benefits, Nahdi Medical Company can make this grand vision a reality."

Eng. Raed Monagel
Chief Supply Chain Officer,
Nahdi Medical Company



WAMAS® allows tracking for the entire material workflow using a single software suite.



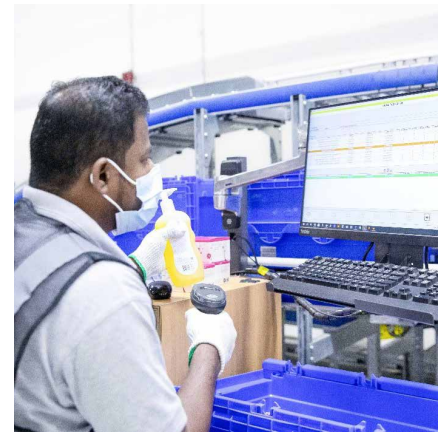
FACTS and FIGURES

System Key Figures

Land Area	250,000 m ²
Built-Up Area	80,000 m ²
Implementation	3 years
Picking Orders	98,000 orders/ day
Handling Units	200 million units/ year
Shipping Totes	5,800 totes/ day
Degree of Automation	Almost 100%

Scope of Supply and Services by SSI SCHAEFER

Planning and Implementation	
Concept Design Creation of logistics concept Simulation and implementation planning Data analysis	
Automated Storage and Retrieval System	
SSI Cuby	Fully automated storage of containers and cartons with a capacity of 37,260 storage locations
	Carton live storage capacity of 27,700 storage locations
Picking Systems	
Advanced Pick	Goods-to-person concept
Conveying System	
Carton and bin conveying system	
Pallet Handling Systems	
Pick by Light	64 picking stations
	5,540 pick faces
SSI Orbiter®	Radio shuttle systems for big items with space efficiency
	34,930 pallet storage locations
Degree of Automation	Almost 100% including tote closing and labelling
Software	
Logistics Software	WAMAS® Warehouse Management Software



WAMAS® allows tracking for the entire material workflow using a single software suite.



Allison Kho

Head of Marketing APAC MEA
at SSI SCHAEFER

Allison Kho is Head of Marketing Asia Pacific and Middle East Asia in the SSI SCHAEFER Group. She leads the marketing direction and strategic communications activities within the regions. Allison joined SSI SCHAEFER in 2019 as the Regional Marketing Manager of South and Southeast Asia and was named to her current position in 2022.

Ms. Allison holds a degree in Bachelor of Science (B.Sc.) Honors in Marketing from University of Bradford. An experienced marketing and communications professional with a demonstrated history of working in Data Centers, Electrical, industrial and equipment industries, she has more than 15 years of experience in Marketing and Communications within the Asia Pacific region.

Schaefer Systems International
Pte Ltd
73 Tuas Avenue 1 Singapore
639512
<https://www.ssi-schaefer.com/en-sg>

Phone: +65 6863 0168
Email: allison.kho@ssi-schaefer.com

THE GREEN CORRIDOR

Charge Me Up!

Energy Storage Development – A Fast Emerging Technology Needed for Sustainability

by **Timothy Foote**, *Founder of Susymbio*

When was the last time you ordered food from a company using an app on your phone? For most people it probably wasn't that long ago. That said, when was the technology there to even make ordering from an app possible? The answer would definitely be within the last 10 years. Before that, all the needed elements would not yet have been in place.

That is not to say that one could not see the future coming. The first iPhone only came out in 2007 – ushering in smart phone apps and all the rest in very quick succession. For transportation and logistics – the revolution to decarbonize is likewise well underway.

As a sustainable logistics consultant I'm often reading up on how technology is evolving in the energy sector. Sustainable energy is needed in our energy grids in order to truly make our battery-operated machines emissions free. This month I wanted to shed a light on emerging battery technology.

Fossil fuel proponents like to claim that oil and coal are the only "rainy day" energy source out there. This has not only been reinforced by recent world events – it's also being destroyed in the lab by teams of people coming up with ways to simply store wind and solar power cheaper and cheaper.

THE ENERGY GRID

Batteries that store variable renewable energy (VRE) like wind and solar power are making many headlines. A recent report in AZO Cleantech goes into the detail on how promising research showed aluminum-sulfur battery design has really come along. Researchers at MIT have figured out how to make a new battery with abundant and cheap base materials. The real chemical secret to make aluminum and sulfur work together this way seems to be in the type of molten salt they use as an electrolyte. Sulfur is the cheapest of all non-metals. Aluminum is the second most available metal in the world marketplace of metals. What is left for the research team and their partners is to move the tech up to industrial scale storage prototypes. The work here is ongoing.

Sand, of all things is also in the energy storage mix! It may not sound "high" tech – but it is new – and it is very attractive for companies that want to store energy when it is being generated in abundance and then later get the energy's heat back. BBC reported recently on how this was being applied in Finland for storing wind and solar power in a community using 100 tons of low-grade sand and a giant, silo looking storage





building. Amazingly the energy from the wind and solar power heats the sand up to 500 degrees Celsius. That heat is then used in the form of hot air to heat homes and pools. It is also attractive for industrial uses like food, pharmaceuticals, and textile production.

ELECTRIC TRANSPORTATION

On the vehicle side too there is serious R&D going on now to make LFP (lithium iron phosphate) batteries just as power packed as the lithium ion battery. According to an article I read in Automotive News, this is driven by USA's need for more battery raw materials from more secure origins. The technology is there and being developed rapidly to ensure that LFP batteries will start selling alongside lithium-ion batteries in much greater volumes.

In addition to the benefit of keeping up with the demand for the sheer volume of batteries that will be needed to transition to green – the LFP batteries also have advantages for safety. they can last longer – which

lowers total costs of ownership of electric vehicles further. Another nice thing is that they perform better at high temperatures (nice for Southeast Asia).

If given support clever people can build our power grid structure into a sustainable one. We are seeing the results slowly but surely. Let's do our part and propel our industry into the new technologies. Press our energy suppliers for more sustainable energy in the grid. The tech is there and it is developing fast.



Timothy Foote
Founder of Susymbio

Tim Foote runs Susymbio, a boutique consulting firm. He advises clients on green logistical solutions and provides sustainability program management services. Tim has worked in management positions at multiple MNCs for more than 25 years, gaining expansive expertise in logistical operations. Tim has crafted delivery solutions for many e-commerce and freight forwarding clients. He has also managed the supply chains for both bulk and consumer chemical companies.

As DHL eCommerce's first Asia Pacific Head of Go Green, he put in place various programs, including carbon footprint management, sustainability training and illegal wildlife smuggling monitoring.

Tim volunteers his free-time with the Singapore Wildcat Action Group, a not-for-profit organisation that raises awareness and funds for wildlife conservation.

Grow Your Brand Through Platform Partnership

Consumers trust recommendations from third parties more than they trust a brand itself. 70% of people will trust a review from a complete stranger as opinions and recommendations are by and large more influential when they do not come from the source itself. Additionally, most marketers include company logos and testimonials as proof on materials pages to strengthen trust and influence visitor behaviour.

LogiSYM offers marketers a range of promotional options to reach your target audience, generate quality leads and increase conversion rates.

The combined magazine platforms of LogiSYM and CargoNOW offer one of the largest circulations globally and are the biggest in the Asia Pacific region. Coupled with this, LogiSYM and CargoNOW hold world-class symposiums in various parts of Asia and the Middle East and have been doing so for more than 8 years.

The online presence of the brands is second to none and this is further strengthened by our high visibility on social media such as Facebook and LinkedIn.

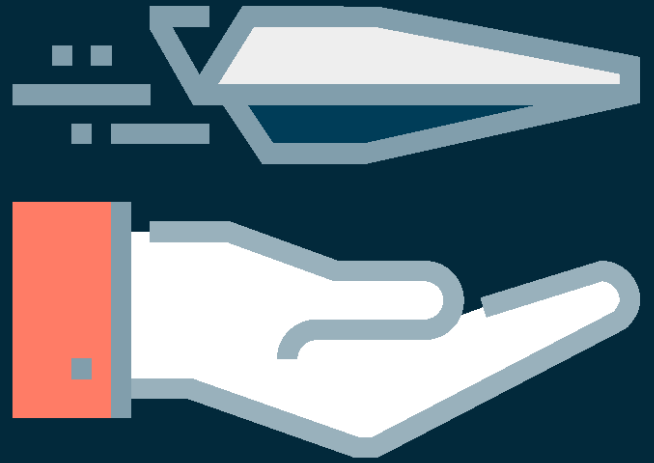
In this Influencer or Platform Partnership, LogiSYM will provide significant influencer reach across the supply chain industry which include the following platforms:

- ✓ Articles in two of the largest circulation supply chain publications globally
- ✓ Press-releases
- ✓ Webinar sponsorships
- ✓ Online advertising
- ✓ Industry led symposiums across the region
- ✓ Surveys & survey analysis
- ✓ Advertisements in two of the largest circulation supply chain publications
- ✓ Online articles
- ✓ Content syndication
- ✓ White label reports and thought leadership articles
- ✓ eDMs
- ✓ Social media – LinkedIn, Facebook, YouTube



When working on the Influencer / Platform Partnership, partners have the opportunity to choose which options they feel will give them maximum reach and success and planning and pricing will be structured along the desired activities. Contact Harjeet@logisym.org for more information.

boomi



Accelerate Innovation With Intelligent Supply Chain Management

- ERP modernization
- Mechanical device digitization
- Goods and logistics tracking

The possibilities are endless with the
Boomi AtomSphere Platform.

www.boomi.com

apj@boomi.com