

LogiSYM

The Magazine for Supply Chain Executives

FEBRUARY 2024

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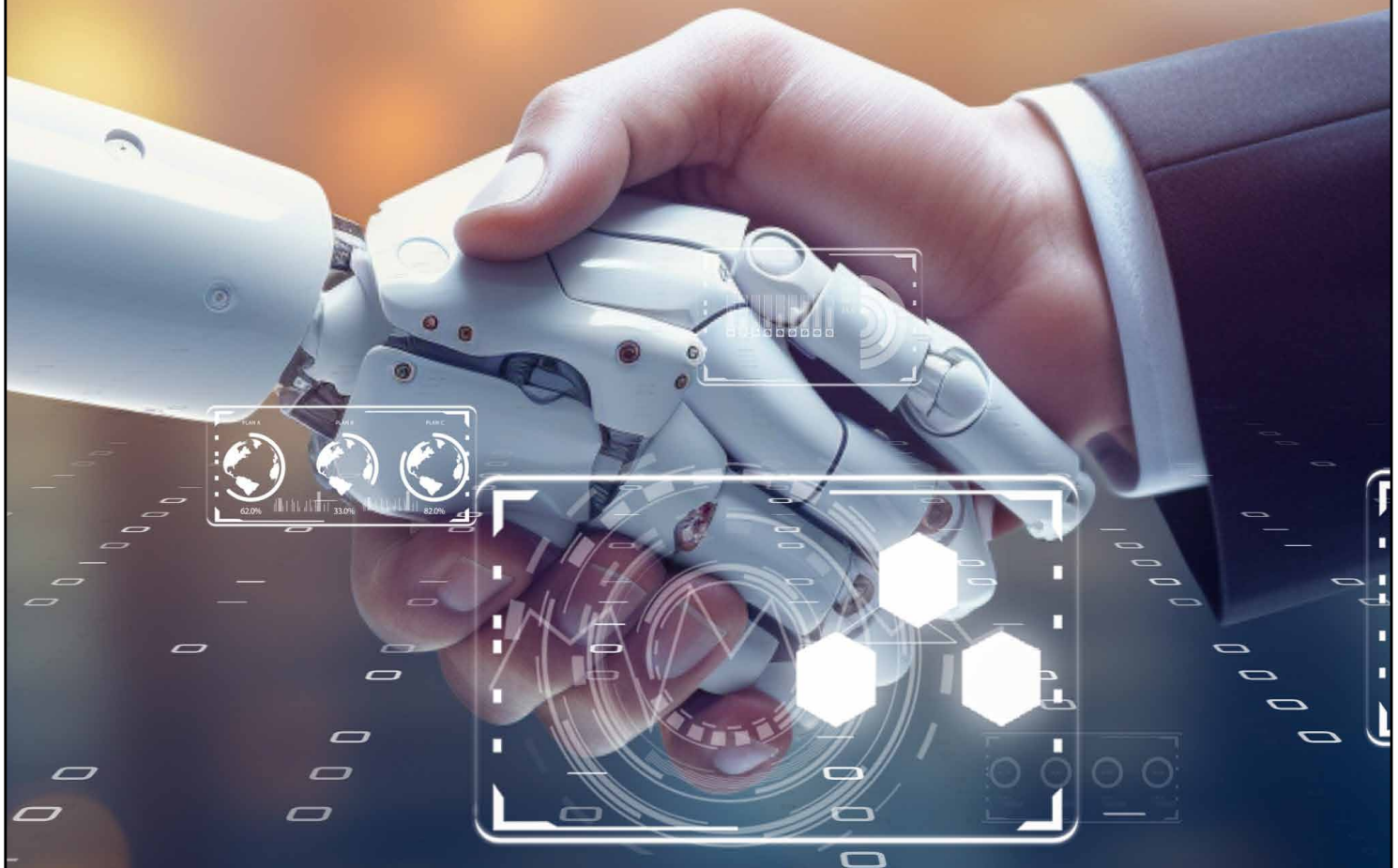
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Digital Transformation of Supply Chain Processes

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.....Shape our organisation for resilience and better business performance...?

Dear Readers,

The year has started with what is now a very familiar pattern. Global disruptions and uncertainties, transport and logistics constraints, complexities of interconnectedness, short term focus and cost pressures and many more issues to challenge us. The need for digital transformation and resilience in supply chains has become even more important. Companies face challenges in adopting new technologies, integrating digital platforms and building agile supply chain networks, capable of quickly adapting to disruptions.

For many, inventory is a critical issue. Too much in some locations and shortages in others, impacted by customer changes in demand. Relocating inventories and ramping-up capacity, proves is even more challenging, not least with global disruptions, constraints and regulatory and compliance issues, adding more layers of complexity

Digital transformation is the critical priority to help alleviate such pressures. However, many companies still rely on outdated systems and manual processes, lacking the agility and visibility needed to address modern supply chain challenges effectively.

Master data quality has not yet had an impact to solve issues of limited visibility into upstream and downstream supply chain activities. Data silos, information asymmetry, and concerns over data security and privacy hinder efforts to improve transparency and collaboration across supply chain partners. This hampers effective decision-making and risk management.

The importance of building resilient supply chains is clearly apparent. Companies are

prioritising resilience by diversifying sourcing strategies, reducing dependencies on single suppliers or regions and investing in risk management tools and capabilities to better anticipate and respond to disruptions.

Overcoming organisational inertia, finding alignment of focus and implementing new technologies, is proving to be a very long and complex process. Resistance to change, both within organisations and across supply chain partners, is hindering faster adoption of new technologies, streamline processes, or modify established practices. Fear of disruption, lack of buy-in, and organisational silos can impede progress towards more efficient and resilient supply chains.

This requires innovative leadership with a fresh mindset to leverage on the potential of organisation by investing more in a culture that drive business performance to new levels. We cannot expect to solve the current complex issues with methods, culture and leadership of the past, irrespective of how successful they were. We need leadership to shape a culture of growth mindset behaviours that enables transformation.

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



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Let's Look Ahead - Whilst Being Mindful of the Present.

As we started the year, the news and focus being discussed by many Logisticians (and others) was the Red Sea crisis. Unfortunately, as this issue goes to print, in the short term, there does not appear to be an end in sight. The good news however is that despite the predictions of doomsayers, the cadence in supply chains are beginning to level out and we are seeing freight prices rationalising, as firms and carriers adjust to the extended lead times caused by vessels bypassing the Suez Canal in favour of the Cape of Good Hope.

In this issue of LogiSYM we turn our focus towards something more productive and strategic. Digital transformation has emerged as a crucial imperative for supply chain management. The adoption of digitalisation and digital supply chain strategies offers immense potential to revolutionise traditional operations, enhance efficiency, and drive sustainable growth.

Implementation of digital technologies such as artificial intelligence, IoT, blockchain, and big data analytics enables real-time visibility, predictive insights, and seamless collaboration across the supply chain ecosystem. Companies should leverage these technologies now in order to help them streamline processes, optimise inventory management and improve decision-making to meet customer demands and market dynamics.

Despite the much talked about benefits however, embracing digital transformation is not without its challenges and still does not have the full momentum it needs within many firms to help make that step-change. Organisations still grapple with complexities such as legacy systems integration, data security concerns, talent acquisition, and cultural resistance to change.

Across industries, successful use cases abound, showcasing the transformative power of digital supply chain strategies. From predictive maintenance in manufacturing to demand forecasting in retail and blockchain-enabled traceability in agriculture, innovative applications are reshaping supply chain operations and driving competitive advantage.

This issue delves deeper into these opportunities as we explore the implementation strategies, emerging challenges, inspiring use cases, and transformative impact of digital transformation on supply chain management as a lead up to LogiSYM Asia Pacific in May this year. Tickets for our flagship event are now available and shippers can attend for FREE whilst service providers can avail themselves of the heavily discounted early-bird pricing. Just click on the QR code to register.

Be safe.

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

Digital Transformation: Digitalisation & Digital Supply Chain Strategies

Feature Article by **Dongkyun Kim**, Vice President, **Samsung SDS**

DIGITALISATION AS A NECESSITY FOR INDUSTRIAL EVOLUTION

Digitalisation has greatly reshaped the modern business landscape. With technology driving fundamental changes, supply chains have become more intelligent, efficient, and interconnected. According to the 2023 MHI Annual Industry Report, emergence of supply chain related challenges from the global pandemic from 2020 to 2021 has convinced 74% of supply chain leaders () to increase their digital investments in digital transformation. Among them, 90% of them plan to spend beyond \$1 million.

Leveraging advanced tools such as data analytics, artificial intelligence, blockchain, and the Internet of Things (IoT) have simplified operations, refined inventory management, and enhanced transparency across the supply chain. The integration of digitalisation not only yields substantial cost savings and operational enhancements but also empowers companies to swiftly adapt to market fluctuations and consumer demands.

MAKINGS OF A SUCCESSFULLY IMPLEMENTED DIGITAL SUPPLY CHAIN

A digital supply chain, when successfully implemented, is made up of several pivotal components. Firstly, when it achieves end-to-end visibility, which facilitates real-time tracking and monitoring throughout the entire supply chain. By enabling a real-time view of the supply chain journey, organizations can respond to potential disruptions swiftly and meet the ever-changing demands of customers.

Next, the system must by nature be centralized to allow for data integration and advanced analytics features to empower data-driven decision-making and continuous process

improvement. Data integration involves the seamless aggregation of information from diverse sources throughout the supply chain. Once this data is unified, advanced analytics come into play, providing invaluable insights and predictions.

In addition, the system must possess an easy user interface for accessible data management for all supply chain stakeholders. From a frontline operator to the strategic decision maker, the interface stands as a gateway to all stakeholders. Having ease of navigation allows all stakeholders to interact seamlessly with supply chain data, by ensuring that it's readily available and provides accessibility to all stages of the supply chain.



Lastly, there must also be mandatory training and reskilling of employees and relevant stakeholders on how to operate the digital platforms. Comprehensive training ensures that employees not only understand the intricacies of digital supply chain platforms but are also able to harness their full potentials. Reskilling initiatives cultivate a workforce capable of leveraging technological tools at their disposal and enhances operational efficiency. Especially in a landscape evolving in the direction of digitalisation, an adept workforce is indispensable in propelling the success of a supply chain.

CHALLENGES PREVENTING DIGITALISATION

Despite the promising benefits of digitalisation, achieving its proper full-scale implementation would incur formidable challenges. The first would be rooted to the industry's fragmented nature, followed by a pervasive reluctance towards innovation and concerns of data security. The complexity of supply chain ecosystems often stems from a myriad of stakeholders, each utilizing their respective technological systems. Given the massive level of disparate systems used by different players, it only contributes additional layers of complexity from unstandardised practices across the industry. With a heavy reliance on legacy systems, businesses also face a huge inertia to upgrade or replace their systems, unwittingly creating a self-inflicting hesitation



from adopting innovative technologies.

Another prevailing issue would be the industry's hesitancy towards embracing transformative innovations for digitalisation. The supply chain industry has been traditionally risk averse and cautious in deviating from tried and tested methods, even in the face of a rapidly advancing technological landscape in the supply chain industry. Concerns revolving around initial business costs and potential disruptions in the midst of transition will only impede the adoption of digital systems. Moreover, the absence of existent process frameworks for digitalisation will produce a sense of uncertainty and result in a reluctance to commit to a comprehensive digital transformation.

The integration of large volumes of data would also call for concerns regarding its security and privacy. If improperly safeguarded, would pose a substantial risk for data leaks. The apprehension surrounding the misuse of sensitive information will prevent

businesses from leveraging the transformative potential of digitalisation. Businesses would have to invest in robust IT infrastructures, encryption technologies and establish robust security protocols in order to address these challenges. Otherwise, the fallout from such incidents will extend beyond financial losses and even include reputational damage and loss in customer trust. Even though companies are well aware of the operational benefits of digitalisation, they remain realistic in weighing them against the potential risks of cyber threats.

USE CASE: EMPOWERING AN ELECTRONICS MANUFACTURER THROUGH SHIPMENT VISIBILITY

Despite its stellar business performance a leading electronics manufacturing firm with outstanding levels of annual sales., was facing a lack of shipment visibility and lacked a digital platform for data analysis and management. The implementation of digitalisation was instrumental in addressing its longstanding visibility gaps, as well as its operational challenges that once led to delivery delays, diminished customer satisfaction and escalated transportation costs.

Previously, the lack of visibility brought forth notable pain points such as unclear in-transit inventory, frequent escalations, absence of cost tracking, reliance on manual tracking methods and an inability to predict transit times. The business

struggled with non-clarity on its in-transit inventory levels, facing dual extremities of shortages and over supply. The perpetual confusion of inventory statuses only lead to cases of miscommunication and inaccurate reports, with frequent escalations for clarification.

The impact of these digitalisation measures reverberated throughout the organization. Overall productivity witnessed a marked upswing, propelled by streamlined processes and an informed decision-making culture. Escalations, once a frequent occurrence, dwindled as the digitized system afforded a proactive approach to identifying and addressing potential issues. The adoption of data-driven decisions yielded outcomes more closely aligned with strategic objectives.

The true testament to the success of this digitization journey lies in the profound shift in increased productivity. The improved visibility and transparency translated into expedited delivery times, elevating customer satisfaction and better outcomes resulting from data-driven decision making. Employees, buoyed by the newfound capabilities of the digital tools, have also embraced a culture of innovation and continuous improvement.

CONCLUSION

The role of digitalisation in the supply chain industry is in a constant state of evolution and continues reshaping the



way businesses operate and adapt to a rapidly changing world. With Gartner predicting the supply chain industry to achieve digital maturity by 2025, digital transformation shows no signs of slowing down. Technology will continue to drive innovation, making supply chains smarter, more interconnected, and highly responsive to market dynamics. As we look towards the future, factors such as sustainability, ethical practices, and robust cybersecurity will play an increasingly critical role in the digitalisation journey.

Embracing these digital advancements is not just a choice but a necessity for businesses looking to thrive in an increasingly complex global marketplace. It is an exciting time for businesses to harness the power of digitisation, and the potential rewards are substantial for those who take the leap into the world of smart, connected supply chains.

The recognition of long-term benefits of operational efficiency and market competitiveness is necessary for the supply chain industry's journey to digitalisation. It is

through the navigation of the industry with strategic vision and a strong commitment to innovation that companies are truly able to unlock the capabilities of digitalisation for continuous success. In this era of digitalisation, the supply chain industry is poised for unprecedented growth and innovation.



Dongkyun Kim

Vice President
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Dongkyun Kim (DK) is the Vice President of Samsung SDS where he leads 8 branch offices in Southeast Asia, providing logistics services to clients in the region.

With over 20 years of global experience in various industries, DK has been at the strategic forefront of business development with major brands in Southeast Asia, developing global businesses and digital transformation initiatives in global logistics operations.

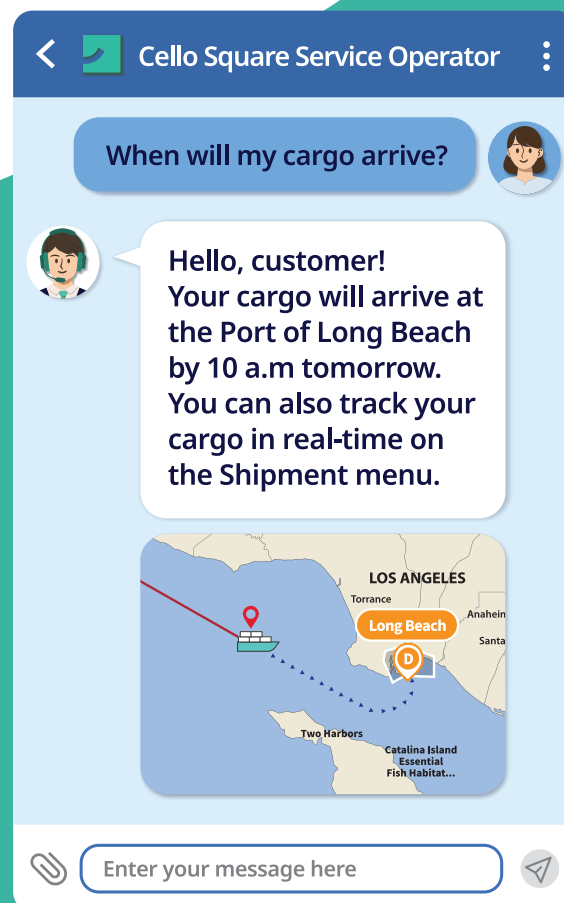
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Dronamics, the world's first cargo drone airline with a license to operate in Europe, and Qatar Airways Cargo, the world's largest international cargo carrier, announced today an interline agreement. The partnership marks the first interline agreement between an international airline and a cargo drone airline.

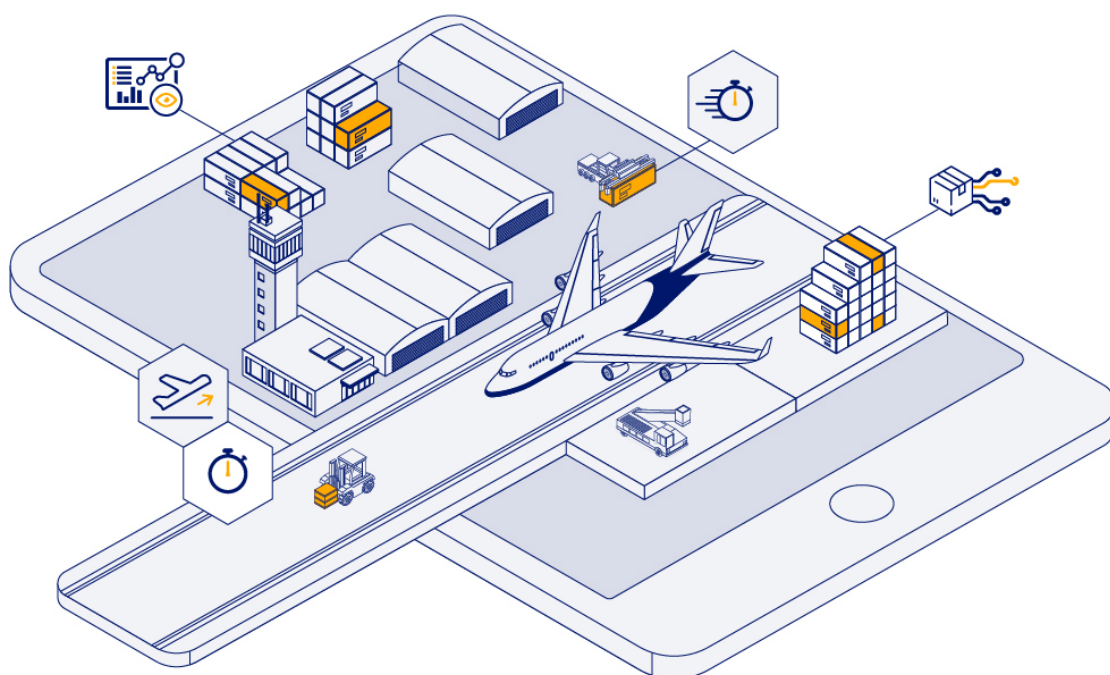
The interline agreement allows the extension of the delivery networks of both partners, significantly increasing their reach as well as providing access to areas previously hard to reach by traditional air freight. Through the agreement, Dronamics

can offer cargo services from any of its droneports, initially in Greece, to the wider Qatar Airways Cargo network - including destinations such as Singapore, China, including Hong Kong, and the United States (JFK). Qatar Airways Cargo is able to access remote locations that Dronamics serves, such as the Greek islands, on the Dronamics cargo drone network.

Through this network expansion, Dronamics customers can make a single booking to transport goods from a Dronamics droneport to any destination that the interline joint network covers, and vice versa. The

potential for the flow of goods, from pharma to food, from e-commerce, mail and parcels to spare parts, is significant, enabling rapid and reliable shipments to and from locations not sufficiently covered by air freight.

"We're very excited to have the world's largest air cargo carrier as our partner for the first-of-its-kind interline agreement with our category-defining cargo drone airline. While currently less than 1% of global trade moves by air, the vast global reach of Qatar Airways Cargo and their world-leading capacity and service give us the perfect platform to massively expand



air cargo accessibility to countless more communities worldwide, enabling same-day delivery for everyone, everywhere,” said Svilen Rangelov, Co-Founder and CEO of Dronamics.

“As a part of our VISION 2027 5-year strategy, we are committed to remaining at the forefront of our industry by embracing new disruptive technology. It is also within our DNA to support young ambitious companies like Dronamics and we are looking forward to seeing what the future holds for this exciting business. It is a significant milestone in the advancement of autonomous cargo drone transportation and we are proud to be the first international airline to offer this service.” said Elisabeth



Oudkerk, SVP Cargo Sales & Network Planning at Qatar Airways Cargo.

Dronamics is expected to begin commercial operations in Greece early next year, focusing on establishing a same day service connecting Athens, the capital city, with the industrial north area of the country, as well as the islands in the south.

Earlier this year, Dronamics became the first cargo drone airline to obtain IATA & ICAO designator codes, granting it recognition on par with other international airlines, and the ability to issue air waybills to enable seamless bookings with its airline partners. This interline agreement is a crucial next step in Dronamics’ plan to establish a cargo drone airline network with worldwide reach.



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Digital Transformation of Supply Chain Processes

Feature Article by **Albert Wee Kwan Tan, PhD**, Associate Professor and Academic Program Director, Online Master in Business Administration, **Asian Institute of Management**

In the dynamic landscape of modern business, the integration of cutting-edge technologies has substantially enhanced internal operations. E-commerce has fostered seamless communication between businesses and suppliers, and various supply chain systems have expedited the journey of products to market with unprecedented efficiency. However, this ongoing evolution is not static. The current era marks the inception of a transformative business paradigm with the advent of supply chain digitalisation. Real-time connectivity, heightened visibility, immediate responsiveness, and anticipatory capabilities are poised to redefine the fundamental characteristics of enterprises.

This transformative shift demands a deliberate and strategic approach, requiring businesses to build upon past incremental advancements while steering towards a future characterised by networked, digitally connected ecosystems. Every company's journey is unique and intricate, making the pursuit of a digitally transformed supply chain a challenging

but rewarding endeavour. The imperative lies not only in reaching a specific end goal but in embracing the myriad benefits accrued throughout this transformative journey. This article consolidates fresh insights into steering digital supply chain transformation projects and effectively managing the associated internal and external changes, offering a guide for a future where innovation and efficiency harmoniously converge.

For organizations contemplating a digital transformation in their supply chain, we advocate commencing with a comprehensive assessment of existing processes. This includes identifying the necessary skill sets for key roles critical to driving such initiatives. The envisioned outcome is a roadmap for future investments based on meticulous research, designed to enhance operational efficiency and the digital supply chain experience for individual functions and stakeholders across various business domains. This article summarizes some leading practices already adopted by forward-thinking companies

embarking on digital supply chain transformations.

FIVE KEY STEPS TO DIGITALIZE THE SUPPLY CHAIN PROCESS:

1. Establishing the Core Team: Identify and announce the business owner of the supply chain transformation program. The business owner nominates the program manager and a supply chain process subject matter expert (SME) to initiate preparation activities.

2. Setting Mutual Goals: Establish organisational and supply chain partner targets. Identify program participants and outline roles and responsibilities for all stakeholders. Develop a robust program governance structure. Emphasise the fundamental goal of an integrated supply chain to improve operating efficiency or cost management compared to competitors. Conduct cross-functional and cross-partner workshops to address the central question: How will this process enhance supply chain performance?

1	What are your goals	Customer Experience Transformation				Digital Optimization and Efficiency	
		Can we increase demand? • Serve a different set of customers (convert non-customers) • Create new value proposition for customers (pains/gains) • Improve sales and marketing to enhance the brand • Better understand what's missing in the market (find whitespace) • Improve quality of existing products				Can we deliver cheaper or more efficiently? • Improve supplier effectiveness • Improve operational efficiency • Improve employee productivity	
2	What should change						
		Value proposition	Customer segments	Channels	Products & Services	Revenue streams	Value chain

Figure 1

3. Identifying and Assessing Stakeholders:

In the pursuit of a successful digital supply chain transformation, employing the Business Model Canvas, crafted by Alexander Osterwalder, becomes a pivotal tool. This offers a structured approach to comprehending a business model, extracting valuable insights into customer segments, value propositions, channels, and revenue streams. In the context of our transformational journey, the canvas serves as a means to identify and assess stakeholders who wield the potential to influence the program significantly. Figures 2 and 3 provide a snapshot of a sample Business Model Canvas, illustrating the state before and after transformation.

Before Transformation (Figure 2):

Before Transformation (Figure 2): This captures the existing state of the business model, mapping out customer segments, key value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure. Stakeholders are

The Business Model Canvas

Team or Company Name: Current Domestic Market Date: 12 June 2017 ☒ Primary Canvas ☐ Alternative Canvas

Key Partners - Landlords - Banks - Timber suppliers - Certifying agents	Key Activities - Leadership - Marketing - R&D - PF production and application	Value Proposition - Brand - Cost performance - Supply capability - Reliability - Lead time - Innovation	Customer Relationships - Website - Sales Representatives	Customer Segments - Project – Commercial Builders - Retail – House Builder
Key Resources - Veneer supply - Production plant - ERP/BI		Channels - Distributor - Construction Material outlets		
Cost Structure - Economics of scales - Third-party costs - High fixed costs - Raw material costs (70%) - Factory rental - Labour turnover - Short cash conversion cycle			Revenue Streams Product sales	

Figure 2

The Business Model Canvas

Team or Company Name: New Furniture Market Date: 12 June 2017 ☒ Primary Canvas ☐ Alternative Canvas

Key Partners - Bank - Timber suppliers	Key Activities - R&D - Quality control - Marketing - Procurement - Product Postponement	Value Proposition - High quality - Standard compliance - Supply capacity - Vietnam origin - Consistent quality - Competitive pricing - Wide choice of product range - Extra service added - Human and environment safe - Product performance - Supply capacity - Reasonable price	Customer Relationships - Designer - Dedicated sales representatives - Exhibition	Customer Segments - Export Furniture Company - Flooring Producers - Local Furniture Company - Carpenter Workshop
Key Resources - Veneer supply - Machines - ERP/BI - Market intelligence		Channels - Direct sales - Distributor - Wood product outlet		
Cost Structure - Factory rental - Defective products - Certification and compliance costs - High fixed cost - Economics of scale - Marketing costs - R&D costs			Revenue Streams Product sales	

Figure 3

identified and assessed within this pre-transformation context, considering their current impact on the supply chain.

After Transformation (Figure 3): The canvas is updated to reflect the envisioned changes post-transformation. Adjustments are made to customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure to align with the transformed supply chain model. Stakeholders are reevaluated to understand their potential influence and impact in the transformed landscape.

The extension of the Business Model Canvas serves as a pivotal phase in the strategic planning of the digital supply chain transformation program. This comprehensive step involves articulating the programme's scope, defining its objectives, and establishing a timeline for implementation. Importantly, this process integrates a thorough analysis of the strengths and weaknesses inherent in the company's existing supply chain framework. By factoring in these internal dynamics, the program's parameters are refined, ensuring a tailored and nuanced approach to the transformation journey. It goes beyond a mere technological upgrade, considering the intricate interplay of stakeholder dynamics and the unique attributes of the company's supply chain ecosystem and that the transformation

seamlessly integrates with the overall business model. The result is a well-crafted roadmap that not only addresses the specific needs and challenges of the business but also optimally leverages key processes and technologies. This approach lays the foundation for sustained success by fostering a resilient and adaptive supply chain that resonates with the broader goals of the organisation.



4. Coordination and Planning Across Supply Chain Partners:

Establishing and maintaining relationships is fundamental for fostering long-term trust and support. The planning process is bifurcated into two crucial levels: buyer-supplier coordination and production-distribution coordination.

Level 1: Buyer-Supplier Coordination: At this stage, the primary objective is to secure a stable supply of raw materials and resources essential for the project's success. This entails building

collaborative and dependable relationships with suppliers, emphasising consistency, quality, and reliability in the supply chain.

Level 2: Product-Distribution Coordination: Moving beyond the procurement phase, the focus shifts to coordinating the distribution of products, ensuring a seamless transition from development to customer delivery. This level requires a meticulous examination of how the firm can optimally structure its supply chain to facilitate the efficient flow of costs and resources.

To facilitate these coordination efforts, the core team must initiate a series of programme kick-off meetings. These sessions serve a dual purpose: first, to engage stakeholders across the spectrum, aligning expectations and garnering support within the organization and among participating supply chain partners. Second, it provides a platform to create and disseminate the overall program plan comprehensively. During these meetings, the team outlines the responsibilities of key individuals, ensuring everyone is cognizant of their roles and contributions. Furthermore, the milestones to be achieved are articulated, delineating tasks over a feasible timeline. This strategic and communicative approach not only establishes a unified understanding of the programme but also fosters a collaborative spirit among stakeholders, setting the stage for a well-coordinated and successful digital supply chain transformation.

5. Establishing Governance

Structure: Ensuring maximum performance and efficiency within the supply chain is a critical aspect of digital supply chain transformation. The team must establish robust mechanisms to measure performance across all business processes within the transformation scope and remain agile in adjusting resource flows or supplier mixes as needed. Achieving the highest efficiency necessitates a multifaceted approach.

To ensure the company is extracting maximum performance from its supply chain, a comprehensive strategy is imperative. Historical data emerges as a pivotal tool, serving as a representation of anomalies and outliers within supply chain processes. Collecting this historical data requires a well-defined and agreed-upon accountability framework, particularly crucial in the context of digital transformation. By analyzing historical data, the company can identify improvement opportunities grounded in factual evidence, leading to targeted enhancements in efficiency.

In the realm of digital supply chain transformation, traditional project planning undergoes a paradigm shift. It transcends the boundaries of the project organisation and start with suppliers, customers, logistics providers, and other stakeholders. This comprehensive planning approach considers and coordinates the potential contributions of each entity,

CASE STUDY:

TRANSFORMING PROCUREMENT AT ABC CONSTRUCTION:

Background: ABC, a prominent multi-billion-dollar construction company based in India, recognized the need for a more proactive and strategically involved procurement function. The leadership, at the Chief Experience Officer level, aimed to integrate procurement into major decision-making processes. To address historical challenges such as procurement bypass and enhance overall efficiency, ABC initiated a comprehensive digital supply chain transformation.

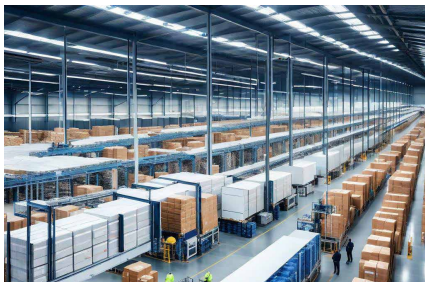
Assessment and Foundation: The transformation journey began with a thorough sourcing and procurement process assessment. Key business needs were identified, and a roadmap for digital supply chain transformation was established. The company already had core systems in place, including e-sourcing, e-auctions, electronic catalogs, contract management, supplier information management, e-procurement, e-invoicing, and spend analytics.

Digital Levers Identified:

1. Collaborative Supplier Networks: Utilizing a digital cloud-based platform for enhanced collaboration and efficiency.
2. Supplier Risk Management: Employing futuristic risk modeling based on internal and external parameters, utilizing predictive analytics.
3. Robotic Process Automation (RPA): Automating the operational procure-to-pay processes to minimize human touchpoints, enhance purchase order management, and maintain a robust audit trail.
4. Cognitive Computing and AI: Addressing cost determination challenges by leveraging AI for strategic assessments of raw materials, considering factors such as historical pricing, global market availability, supplier information, and optimal procurement routes.
5. Predictive/Advanced Analytics via AI: Empowering buyers to make informed decisions for services by providing insights into skillset rates, workforce availability, and current market rates.
6. Intuitive User-Friendly Visualization Tools: Enhancing user experience through visualization tools for better decision-making.

Strategic Implementation: Upon decision-making in procurement, RPA triggers alerts across departments, including plant, marketing, sales, and finance, making the procurement process more strategic to the organisation.

selecting those that will best benefit the project organisation. The initial time and effort invested in this upfront phase yields tangible benefits as projects reach the market more affordably and with heightened customer feedback and acceptance.



CONCLUSION

The transformative journey emphasises the critical role of continual monitoring, upgrading, and adapting mechanisms. This ensures that the digital supply chain transformation not only aligns with the broader organisational goals but also becomes a powerful means for companies to reconfigure their supply chains in response to dynamic market demands.

In essence, the pursuit of a digitally transformed supply chain is not merely a technological upgrade but a strategic alignment that harmonises innovation and efficiency. As businesses strive to optimize processes, enhance visibility, and foster collaboration, the digital supply chain emerges not just as a destination but as a continuous and adaptive evolution. It is a journey where each step forward contributes to building resilience and efficiency in a landscape marked by relentless change.

Emerging Solutions and Technologies: The digital innovation team identified futuristic solutions and technologies that could impact sourcing and procurement:

1. **Blockchain:** Addressing inefficiencies in paper-based contracts, streamlining contract authoring, workflow, approvals, and documentation processes.
2. **3D Printing:** Exploring innovative possibilities in construction processes.
3. **Sensors/Wearables:** Introducing technology for real-time data acquisition in construction sites.
4. **Cyber Tracking:** Enhancing security measures in the procurement and supply chain.
5. **Virtual Reality/Spatial Analytics:** Exploring applications in project planning and visualization.

By adopting these digital levers and emerging technologies, ABC envisions not only overcoming traditional procurement challenges but also pioneering a transformative journey towards a more efficient, strategic, and technologically advanced supply chain.



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Asian Institute of Management

Dr. Albert Tan joins the AIM faculty as an Associate Professor and Academic Program Director of the Online MBA program.

He has a combined 32 years of industry practice and teaching experience in Australia, Singapore, China, Dubai, Indonesia, Malaysia, and Vietnam. Most recently, he

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Dr. Tan was conferred a Bachelor in Information Technology in 1996 by the University of Southern Queensland. He also obtained a Master in Business Studies from the University of Ireland in 1998 and a PhD in Operations Management from Nanyang Technological University in 2005. He is also certified Fellow in Production and Inventory Management (CPIM-F) from APICS.



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COP28 – Transport Connects to the Broader Decarbonisation Agenda

Feature Article by **Wolfgang Lehmacher**, partner at Anchor Group and advisor at Topan AG and **Mikael Lind**, Professor of Maritime Informatics engaged at Chalmers, and Research Institutes of Sweden (RISE)

Some 100,000 delegates, participants and visitors joined COP28, the United Nations (UN) Climate Change Conference in Dubai. COPs are the formal meetings of the Conference of the Parties (COP) convened under the UN Framework Convention on Climate Change (UNFCCC), which is a multilateral treaty adopted at the UN Headquarters, New York on 9 May 1992.

Scientific reports show that we are heading towards a +3 degree world, which is hardly the future we would like to create. Luckily, more and more are joining the decarbonisation bandwagon. According to the Global Climate Action Portal more than 170 announcements were made at COP28, including pledges and declarations, publications and reports, initiatives and updates: double as much as at COP27. Under the Green Shipping Challenge alone, countries, ports, and companies made over 50 announcements.

In 2023, decarbonisation of transport continued to gain global traction. In some

countries more and in others less. Like digitalisation, transport decarbonisation has turned into a global trend, also at COP28. "Shipping's presence and integration in the climate debate further grew at this COP. One estimate was of around 50 side-events, with increasing touch points to the broader agenda," according to Tristan Smith from UCL Energy Institute in Splasg247 after the event. Once again, with this article we share our key takeaways which we think are important for decision-makers in the supply chain and logistics industry across the globe.

CLIMATE NEUTRAL ROAD TRANSPORT

Previously, we reported on numerous collaborations such as the ZEV Transition Council, the International ZEV Alliance, Accelerating to Zero Coalition, and Drive to Zero. The work of these and other collaborations has created sufficient momentum for negotiators to recognize the potential of road transport in the quest to reduce greenhouse gas (GHG) emissions. This increased awareness resulted in the first ever call in the UNFCCC negotiations to ".



Illustration: Sandra Haraldson

Also for the first time Avoid & Shift strategies entered the thematic agenda. The focus was on passenger transport but reduction of transport demand and the shift of cargo to lower/no-emission transport can easily be applied to freight transport as well. The SLOCAT Partnership used the opportunity to mobilise action calling to double the share of energy efficient and fossil-free forms of land transport for people and goods by 2030 which also includes electric vehicles and railways but also Avoid & Shift strategies. Road transport operators will face increasing pressures from their national regulators.

CLIMATE EFFICIENT MARITIME TRANSPORT

At COP28, the Green Maritime Africa Coalition (GMAC) was launched to promote the supply and use of zero emission fuels in Africa's maritime sector, in line with the International Maritime Organisation's (IMO) 2050 decarbonisation plan. 10 companies joined the Cargo Owners for Zero Emission Vessels platform to collaboratively work on the acceleration of the transition to zero-emission (ZE) shipping bringing the number of members to 36. Mondelēz International, Pledge, Reckitt, and REI Co-op have joined the Zero Emissions Maritime Buyers Alliance (ZEMBA), a first-of-its-kind buyers group making advanced market commitments to kickstart the market for ZE solutions. Pressure on transport is rising and consolidating.



Maritime decarbonisation will fail without green shipping technologies. Also, there we saw progress. Zéphyr & Borée announced Canopee, the first modern sail-powered cargo ship, Yara International the world's first clean ammonia powered container vessel, with a first decarbonized shipping route between Norway and Germany, and Wallenius Wilhelmsen showcased its green energy new-builds for a net-zero end-to-end offering by 2027. Together with its partners, Wallenius Wilhelmsen is developing the 'Orcelle Wind' concept, a full-size RORO vessel capable of being propelled solely by wind power, in addition to its methanol dual fuel class.

Many announcements referred to the 2023 IMO GHG Strategy and included the green technology and green shipping corridors. The Clydebank Declaration for Green Shipping Corridors announced the Republic of Korea, Lithuania, and the United Arab Emirates as new signatories. The United States continue to facilitate Green Shipping Corridors in the U.S. and Worldwide, through a

number of decarbonisation initiatives. The UK joined forces with the United States, Norway, and the Netherlands to roll out end-to-end Green Shipping Corridors and many other countries, including Denmark and Chile made corridor-related announcements. The Mærsk McKinney Møller Center for Zero Carbon Shipping launched the Updated Blueprint for Green Shipping Corridors.

We can expect ships to become greener and ports to turn into data and low/no-carbon energy hubs.

SUSTAINABLE AVIATION

In the Pressroom of the IATA website, we can find the statement on the outcome of COP28. "The airline industry is committed to achieve net zero carbon emissions by 2050. To do that we know that we need to transition from fossil fuels to sustainable aviation fuel. It's encouraging that governments have formally recognized the same necessity. To move forward we need SAF



PROGRESS STARTS WITH MEASURING

The Global Stocktake (GST), a checkpoint agreed in the 2015 Paris Agreement requires transparency and national inventory reports. The next submission is due in 2024. Many agree that transport must be reflected in the 2025 Nationally Determined Contributions (NDCs) updates.

COP28 saw the launch of a new Strategy of the International Climate Initiative, a central program of the German Government's international climate and biodiversity funding. The strategy calls for robust MRV systems and reliable data sets to ensure that the transport sector makes a substantial contribution to the NDCs.

This is a very important development as this requires forwarders, carriers, and other supply chain service providers to put in much more effort and diligence around digitalisation and data management. The supply chain services industry is becoming a vital element in supply chain decarbonisation and needs to ramp up its transparency efforts to meet the expectations of cargo owners.

production to rapidly increase to meet demand that is already there. That means governments must deliver policies to support SAF production. And fuel producers must heed the clear call from governments in the COP 28 declaration for them to prioritize investments in renewable fuels," said Willie Walsh, IATA's Director General. IATA expects over 60% of the carbon abatement needed to reach net zero emissions by 2050 to be achieved through SAF.

The statement by the International Civil Aviation Organisation (ICAO) starts with a highlight. "Just last week, here in this dream city of Dubai, ICAO and its Member States took a landmark decision to facilitate the global scale up in the development, production and deployment of aviation cleaner energies, by adopting the

ICAO Global Framework for Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and other Aviation Cleaner Energies, at its third Conference on Aviation and Alternative Fuels (CAAF/3)." The implementation of CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) is on track, with 126 States voluntarily participating in the scheme from its first phase which starts in , 2024, with almost 100% coverage of CO2 emissions reported annually by States, through the CORSIA MRV (monitoring, reporting, and verification) system.

This shows that aviation has taken measures and is confident to contribute their share to the decarbonisation of the economy and particularly the supply chain and the transport sector.

CONCLUDING REMARKS – A STEP CHANGE IN CLIMATE ACTION

The First Movers Coalition (FMC) about which we have reported previously as it contains a transport dimension also gained new members. COP28 has once more demonstrated that it can truly mobilize collaboration to drive progress and respond to the grand challenges of climate change. Most importantly, countries did include language on fossil fuels for the first time. The language is not limited to unabated fossil fuels but covers fossil fuels in general. A post-fossil fuel era has become a possibility. Some expected a commitment to a clear exit from fossil fuels, but we believe this is a step

into a good direction. We should now be all aware that without replacing fossil fuels, we do not preserve the slightest chance to stay on a 1.5°C pathway, which was also referenced in the final agreement and should be our driver to do better at COP29.

The language on “Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030” will drive the uptake of zero emission vehicles and fuel. In hindsight, COP28 may be seen as a step change event in global supply chain and logistics decarbonisation and decision-makers in the industry should prepare for this future because we expect the development to continuously gain speed.



Wolfgang Lehmacher

Partner at **Anchor Group**
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Wolfgang Lehmacher is partner at Anchor Group and advisor at Topan AG. The former director at the World Economic Forum, and CEO Emeritus of GeoPost Intercontinental, is an advisory board member of The Logistics and Supply Chain Management Society, ambassador F&L, advisor GlobalSF, and member of the think tanks Logistikweisen and NEXST. He is co-author of the Practical Playbook for Maritime Decarbonisation and co-editor of the book Maritime Decarbonisation.



Mikael Lind

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Mikael Lind is the world's first (Adjunct) Professor of Maritime Informatics engaged at Chalmers, and Research Institutes of Sweden (RISE). He is an expert contributor at World Economic Forum, Europe's Digital Transport Logistic Forum (DTLF), and UN/CEFACT. He is co-editor of the first two books on maritime informatics, and is co-author of Practical Playbook for Maritime Decarbonisation and co-editor of the book Maritime Decarbonisation.



THE GREEN CORRIDOR

The SAF Challenge

The Race is On for Scaling-Up Sustainable Aviation Fuels

by **Timothy Foote**, Director Transportation & Network APAC at Asendia
and Founder of Susymbio

Sustainable Aviation Fuels (SAF) is desperately needed for a world where climate change can be stopped. Where is it all to come from? Is there progress being made?

Last year in Singapore, Paris, Frankfurt and other key global airports, sustainable air fuels (SAF) started to be blended with regular air fuels to begin the de-carbonization of airlines. The percentage of blending however is painfully low at present. Additionally, the supply for this fuel needs to be made much quicker so that SAF really starts making a dent on our global emissions.

Air emissions has always been a challenge. Mostly because there has been no alternative emissions free aircraft engine invented to fully replace the jet engine. Invented over 80 years ago, the jet engine and its modern permutations require tons of high-octane fossil fuel. In previous Green Corridor articles (<https://logisym.org/the-green-corridor-digitise-wisely-to-reduce-emissions/>), I wrote in some detail about the advancements in engineering, but also the high rate of increasing air miles flown due to the ever-increasing demand for air travel. Long story, short – increasing demand outpaces the engineering advances for the fossil fuel burning engine every time.

SAF has been promoted as the magic bullet for sustainability in this calculation. If the same basic engines for aircraft no longer are burning fossil fuels extracted from the carbon captured oil deposits, then we are not adding to the atmospheric emissions. It can be a great solution if other things fall into place quickly. It also does not require a new revolutionary advancement in aeronautical engineering.

What other things have to fall in place to make it all work though? Well firstly, access to sustainable aviation fuel is needed. Only a handful of Airports have easy access to SAF today. Secondly, the production of sustainable air fuel needs to ideally match the quantity of fuel needed so that the costs can be competitive. This supply requirement is by far the most pressing at the moment. SAF makes up less than 0.2% of fuel used in planes today.

FUTURE DEVELOPMENTS

Feedstock for the current types of SAF fuel is currently a major challenge. Biomass waste feedstocks like used vegetable oils and animal waste are limited. Major innovation is therefore needed



in chemistry and science to find scalable, environmentally friendly, and cheap ways to make new forms of SAF. There are some in development today!

The new emerging fuel production methods I have read about recently are Atj and PtL. These are short for Alcohol-to-jet and Power-to-Liquids respectively. Both methods do not rely on limited biomass feedstocks. They therefore have more potential to scale into the quantities needed from the airline industry.

There will no doubt be more innovations and competing methods to produce SAF in the coming years. I'll be keeping an eye for the latest as I hope others will.

PROPELLING CHANGE

Regulation has been necessary to propel SAF fuel into use. And it has been needed so that demand is generated for SAF innovation, infrastructure, and production. The targets are already there. Major European carriers are targeting 10% of all fuels loaded on planes to be SAF by 2030. The State of California as an example is aiming at 20% to be SAF in 2030.

Targets for less aircraft emissions foster investment and innovation. not just for SAF, but for any alternative engine which may someday replace the jet engine. UPS and DHL are already utilizing battery powered planes for short haul cargo deliveries. It



is not unimaginable to expect that higher and higher energy density batteries will continue to increase the size and distance of these EV flown air shipments.

In summary, SAF development is progressing fast. There are new production methods that are being developed to rapidly ramp up supply and bring down costs. It is a tremendous challenge, but if the industry is to survive it is necessary for solutions to be available sooner rather than later. If you are not doing so today, then think about supporting industry-wide action toward greater SAF use and lower emission standards for aircraft. The assurance for its future sales is still necessary to propel investment. To truly move green requires action by logistics professionals, so please help where you can.



Timothy Foote

Director Transportation & Network APAC at Asendia and Founder of Susymbio

Tim has worked in management positions at multiple MNCs for more than 25 years, gaining expansive expertise in logistical operations. Tim continues to craft delivery solutions for many e-commerce clients at Asendia. Once a regional Head of Go Green at DHL eCommerce, Tim now works for customers to decarbonise their logistics by managing Asendia's 100% carbon-neutral network.

To further promote a net zero future for the logistics industry, Tim created MOVE GREEN. This is a movement committed to greening the logistics industry during this time of transformation. Please join the companies making a pledge to become net zero by going to [Susymbio.com](https://susymbio.com) for more details.

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.

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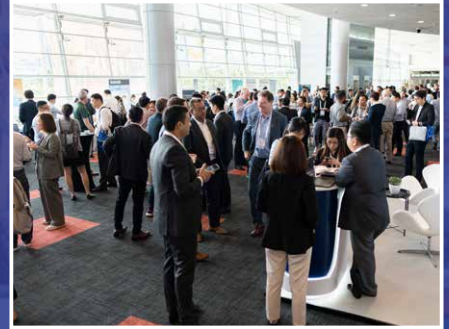
- ✓ Articles in two of the largest circulation supply chain publications globally
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- ✓ Advertisements in two of the largest circulation supply chain publications
- ✓ Online articles
- ✓ Content syndication
- ✓ White label reports and thought leadership 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.

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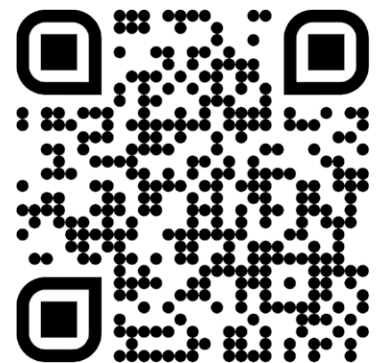


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