

LogiSYM

**BUMPER
ISSUE**

The Magazine for Supply Chain Executives

MARCH 2025

**JAPAN'S WFH REVOLUTION:
TRANSFORMING WORK,
LOGISTICS, AND SOCIETY**

BY SIMON TRUSS AND
WAYNE YOSHIDA

**AN EXCLUSIVE
INTERVIEW: MY JOURNEY
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**THE PROMISE AND THE
PARADOX OF AGENTIC AI IN
SUPPLY CHAINS**

BY SIVA DEVARAKONDA

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The Official Journal of The
Logistics & Supply Chain
Management Society

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**HOW SMES MOVE GREEN
BIG OR SMALL - ALL CAN
MAKE THE TRANSITION**

BY TIM FOOTE



**TECHNOLOGY:
Artificial Intelligence, Generative
Artificial Intelligence, the New
Frontier in Supply Chain**

MARCH 2025

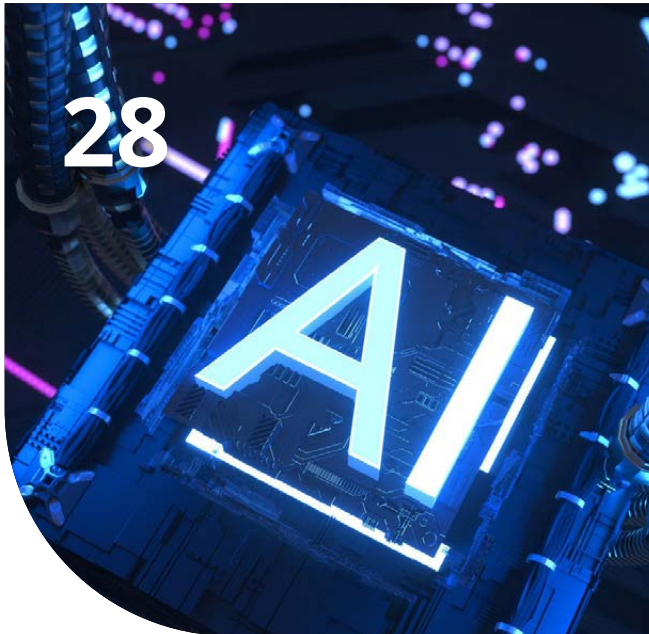
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EDITORIAL MESSAGE

Welcome to the March 2025 edition of LogiSYM Magazine. We are nearly a quarter of the way through the year, and the rollercoaster ride of global and regional supply chains continues, providing some eyes-wide, screaming moments on the way (down) into new challenges and occasionally big smiling eyes and mouths moments as we successfully deal with that challenge and move on to the next. Truly a breathlessly exciting time to be in supply chain!

This month's theme is Technology: Artificial Intelligence (AI), Generative Artificial Intelligence, and the new frontier in the supply chain. No surprise then that March LogiSYM has become a "Bumper Issue" due to the interest of authors and readers alike.

Our Green Corridor series by Tim Foote continues with a focus this month on engaging small to medium enterprises (SMEs), upon whom so many of our businesses depend for critical service capabilities, in the sustainability journey, in his article "How SMEs Move Green". No, SMEs do not need to "wait and see" on getting a plan for sustainability together; there are simple steps to get going, and government support available, which Tim shares.

The value of AI to the future of the supply chain and opportunities for quality decision-making is unquestioned. We have three articles with a focus on artificial intelligence and its deployment in supply chains. Dr. Shereen Nassar from Heriot-Watt University, Dubai, has written an informative piece on "Artificial Intelligence and Generative AI – The New Frontier in Supply Chain Management"; Dr. Albert Tan & Dr. Nursery Alfaridi Nasution have shared their thoughts on the impact for Halal Supply Chains in "The Future of Halal Supply Chains: AI and Blockchain Revolutionising Compliance"; and to pick up on the increased discussion around Agentic AI, we have an excellent article from Siva Devarakonda discussing "The Promise and the Paradox of Agentic AI in Supply Chains".

As we think about the impact of technology in the way we work, Simon Truss and Wayne Yoshida provide great insight into fundamental workplace transformation taking place in Japan. In their article "Japan's WFH Revolution: Transforming Work, Logistics, and Society". Fujitsu provides a case article on the value of digitization and how it affects their growth journey in the Asia region, enabling supply chain transparency and strengthening collaborative partnerships. And we provide a wrap-up on the intralogistics opportunities demonstrated and discussed in partner events hosted by LogiSYM online and onsite in Kuala Lumpur, Malaysia, in February and March.

The LogiSYM APAC 2025 Symposium in conjunction with CeMAT SEA is once again coming to Singapore on May 20-21, 2025; this premier event for networking of global, regional and local supply chain professionals is not to be missed. Register at <https://lmkd.in/gQx&XTdv>.

Brett Marshall
Editor-In-Chief of LogiSYM Magazine



LSCMS PRESIDENT'S MESSAGE

Busy Bees

As the global supply chain landscape continues to evolve, innovation, technology, and sustainability remain at the forefront of transformation. In this edition of LogiSYM Magazine, we bring together thought leaders and industry experts to explore the key trends shaping logistics in 2025 and beyond. It's great to see Brett Marshall slip effortlessly into his role of Editor-in-Chief, and if this bumper issue is anything to go by, the magazine is in good hands.

Unfortunately, our trip to Germany was cancelled at the last minute due to the airport strike in Frankfurt, but it has nevertheless been a busy few weeks at the Society and LogiSYM, with trips and multiple meetings and events in Singapore, Bangkok, and Kuala Lumpur. It's great to be out and about doing something more rewarding and productive compared to what I have been doing these last 10 months, and I am looking forward to working with my colleagues as more events and activities start happening or where planning starts to ramp up.

I look forward to meeting and connecting with you online and virtually at these events and continuing to learn from this vibrant community of logisticians.

Stay ahead with LogiSYM Magazine as we continue to explore the technologies and strategies shaping the future of logistics.

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



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MVGX and World Free Zones Organisation Partner to Advance Sustainability in Free Zones Worldwide

By MVGX Tech





MVGX Tech Pte Ltd (MVGX), a subsidiary of Alpha Ladder Group and a leader in sustainability solutions, and the World Free Zones Organisation (WFZO), the global body representing 1,600 free zones and industrial parks, have signed a landmark agreement to accelerate sustainability adoption across free zones worldwide.

Dubai's dynamic Free Zones serve as a hub for global trade and innovation. With sustainability now a key driver of economic growth, MVGX and WFZO's partnership empowers free zones worldwide to adopt greener, future-ready industrial practices. (Image Source: Freepik.com)

Through this collaboration, Free Zones will gain access to internationally recognised sustainability frameworks, enabling them to implement robust sustainability

management systems and attain the Sustainable Industrial Park (Free Zone) Certification, a key benchmark for green industrial park development. Aligned with ISO 37101, the Management System for Sustainable Development in Communities, and PAS IP 8848, the framework for Sustainable Industrial Park management systems, this initiative underscores a commitment to fostering sustainable, future-ready industrial ecosystems. The signing ceremony in Dubai signals a major push towards sustainable transformation, as free zones worldwide move to align with global environmental, social, and governance (ESG) standards and future-proof their operations.

Helping Free Zones Achieve Global Sustainability Standards

- As part of this partnership, MVGX and WFZO will champion the adoption of

the Sustainable Industrial Park (Free Zone) Standard (PAS 8848:2024), encouraging WFZO members to integrate structured sustainability practices within their operations. To facilitate this, MVGX will provide capacity-building programs, consulting services, and hands-on certification support, equipping Free Zones with the expertise needed to implement effective sustainability management systems. The initiative will also help Free Zones secure dual certification in ISO 37101 (Sustainable Development in Communities) and PAS IP 8848 (Sustainable Industrial Park Free Zone Standard), reinforcing their commitment to globally recognised sustainability benchmarks.

Defining the Path to Sustainability: WFZO and MVGX's Roles

- Under this partnership, WFZO will take the lead in promoting the Sustainable

Industrial Park (Free Zone) Standard across its global network, encouraging Free Zones to integrate sustainability into their operations. It will organise capacity-building events and workshops, providing Free Zones with the knowledge and resources needed to participate in the certification process. Additionally, WFZO will serve as the key liaison between MVGX and Free Zones, ensuring seamless communication and coordination.

- MVGX, on the other hand, will drive the technical execution by developing specialised training programs, sustainability assessments, and improvement roadmaps for Free Zones. It will provide hands-on consulting, guiding Free Zone teams through gap analyses, sustainability project implementation, and certification preparation. From documentation support to third-party certification reviews, MVGX will ensure Free Zones meet globally recognised sustainability standards.

Why This Matters to Free Zones and the Global Economy

Free Zones and Industrial Parks play a critical role in global trade, contributing to economic growth, industrial development, and cross-border commerce. However, as sustainability becomes a defining factor in investment decisions, supply chain partnerships, and regulatory compliance, Free Zones that do not embrace sustainability risk falling behind.

Ms. Lily Hong, Chief Executive Officer and Co-Founder of MVGX, emphasised the importance of the partnership, stating, “This agreement underscores our shared commitment to sustainability in industrial zones. By leveraging MVGX’s expertise in sustainability consulting and WFZO’s extensive global network, we aim to provide Free Zones with the necessary tools and guidance to achieve internationally recognised sustainability certifications. This partnership is a critical step in accelerating the transition to greener industrial practices worldwide.”

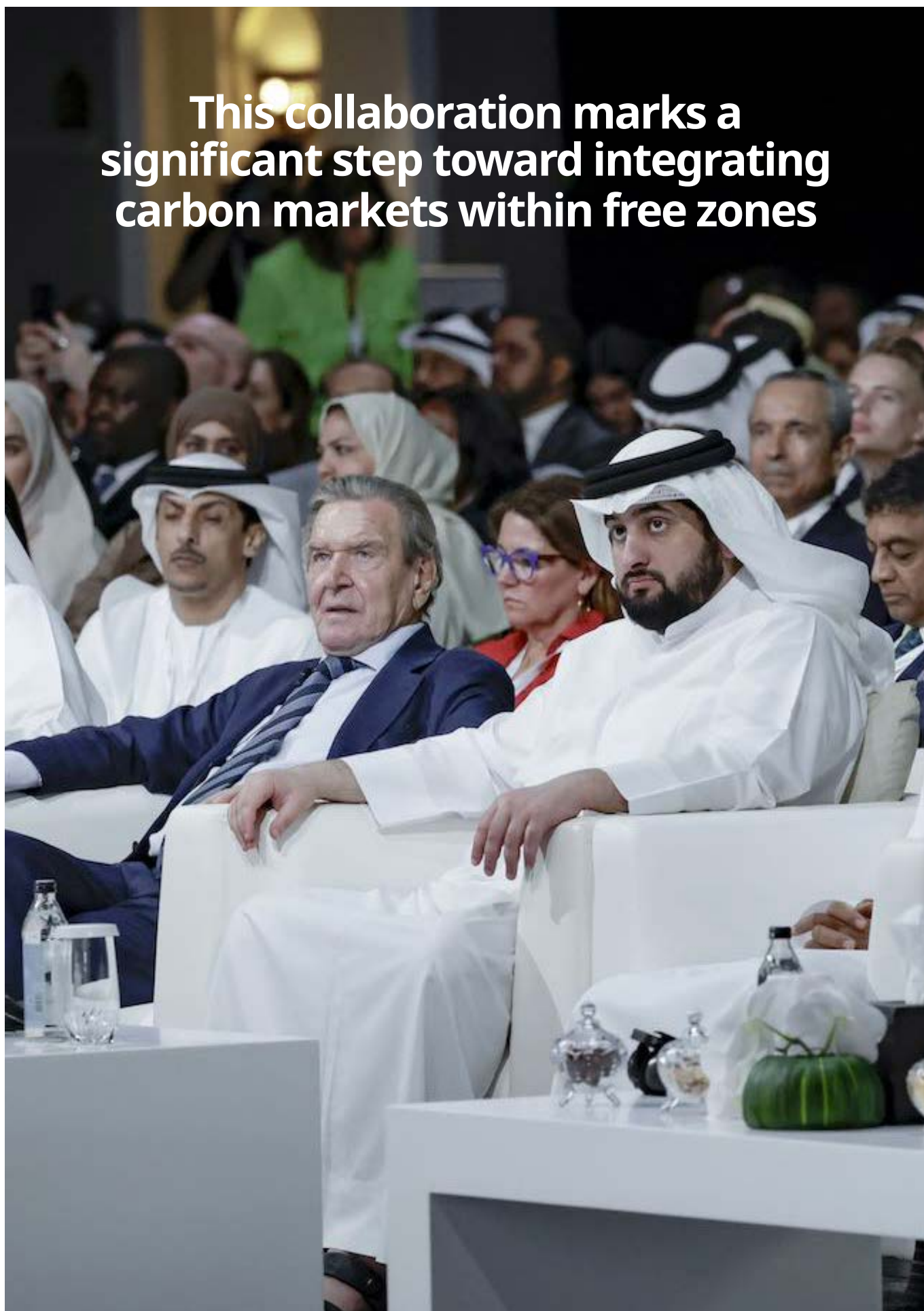
“This collaboration marks a significant step toward integrating carbon markets within free zones, enabling enterprises to actively participate in global carbon reduction efforts,” said Dr. Samir Hamrouni, Chief Executive Officer of World

Free Zones Organisation. “By establishing unified carbon credit standards and digital trading systems, we are fostering a more sustainable and economically resilient future for free trade zones worldwide.”

This partnership between MVGX and WFZO provides Free Zones with a clear roadmap to sustainability compliance, strengthening their appeal to global investors and businesses. By offering direct access to cutting-edge sustainability knowledge and best practices, it empowers Free Zones to future-proof their operations while aligning with global ESG regulations. With sustainability now shaping the future of trade, this collaboration ensures Free Zones remain competitive, resilient, and positioned for long-term success.



This collaboration marks a significant step toward integrating carbon markets within free zones





The World Free Zones Organisation (WFZO) is an international, non-profit organisation established to promote and advocate for the global free zones ecosystem. Founded with the aim of fostering cooperation, innovation, and sustainable development within free zones worldwide, WFZO acts as a key facilitator for stakeholders in the free zone industry. These include governments, regulatory bodies, investors, and business operators. The World FZO was launched in Dubai, UAE, in May 2014, by its 14 founding members and under the auspices of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, and Ruler of Dubai. WFZO serves as a central platform that connects over 3,000 free zones globally, providing them with the resources, knowledge, and support needed to thrive in an increasingly competitive global economy. Its mission is to elevate the free zone sector by sharing best practices, facilitating networking opportunities, and advocating for policies that stimulate economic growth, trade, and innovation.



MVGX, a subsidiary of Alpha Ladder Group and headquartered in Singapore, is a pioneer in sustainability compliance solutions across seven key markets in Asia-Pacific, with a growing presence. We offer a comprehensive suite of services, including digital Measurement, Reporting, and Verification (MRV), regulatory compliance reporting, carbon credit advisory and trading, capacity building, and access to green finance.

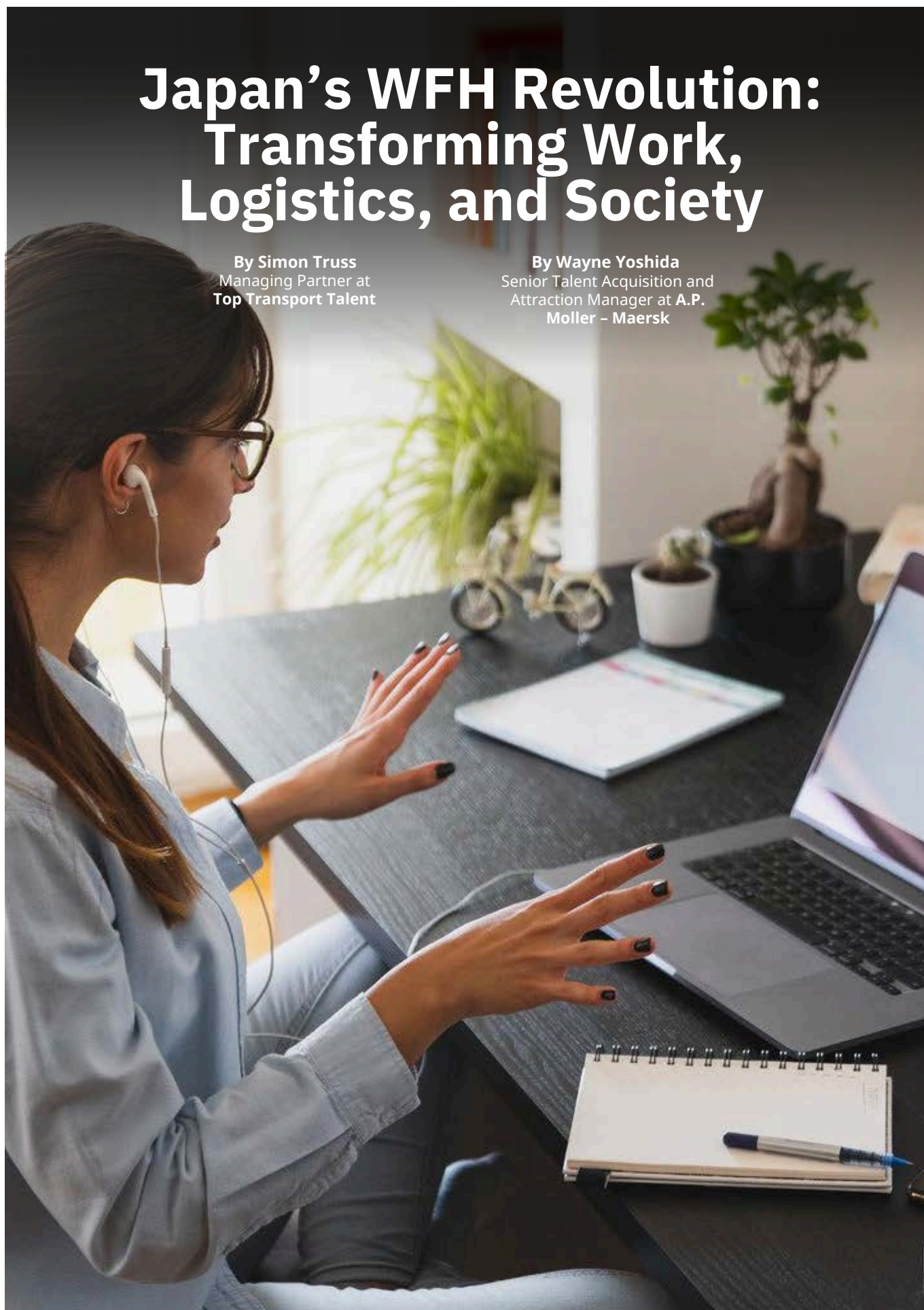
Leveraging proprietary AI inference models and the region's most extensive emissions factor database, MVGX streamlines sustainability compliance, making it simpler, scalable, and seamless. Our plug-and-play solutions enable businesses to lower the cost of regulatory compliance while unlocking capital—whether by securing green finance or monetising carbon credits.

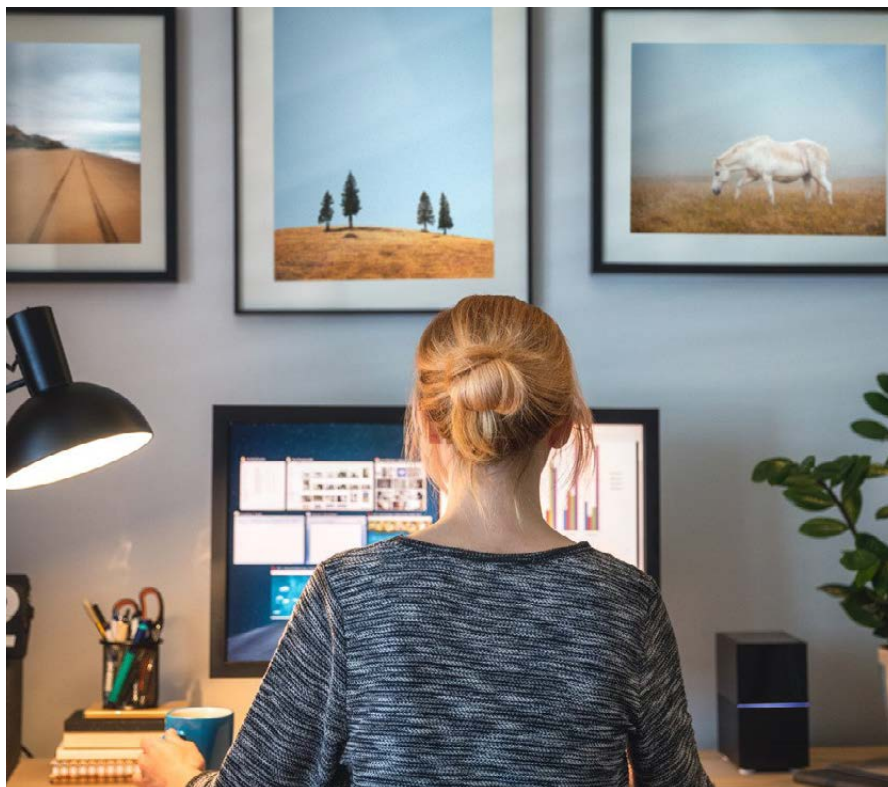
Discover how MVGX is shaping the future of sustainability compliance at www.mvgx.com.

Japan's WFH Revolution: Transforming Work, Logistics, and Society

By Simon Truss
Managing Partner at
Top Transport Talent

By Wayne Yoshida
Senior Talent Acquisition and
Attraction Manager at A.P.
Moller – Maersk





Once bound by rigid traditions and long commutes, Japan is now undergoing a quiet revolution. The work-from-home (WFH) phenomenon has reshaped the nation's work culture, catalysing dramatic changes in logistics and society. While adoption has been slower than in the West, the long-term effects are proving to be just as impactful—and the logistics sector is right at the heart of this transformation.

The Advantages of WFH in Japan

Remote work is more than just a trend—it's unlocking opportunities that are reshaping industries and society.

Talent Attraction and Workforce Inclusion

WFH is proving to be a critical tool for addressing Japan's labour shortages:

- **Attracting Diverse Talent:** Remote roles are opening doors for housewives, carers, and retirees, allowing them to balance work with personal responsibilities.
- **Retaining Young Professionals:** Flexibility and work-life balance are key demands from younger candidates, making WFH a competitive advantage in hiring.
- **Tapping Regional Talent:** Companies can now hire skilled professionals outside of urban centres, reducing reliance on Tokyo's overcrowded labour market.

Productivity and Cost Savings

- **Enhanced Efficiency:** Workers save time and energy by avoiding long commutes, leading to improved focus and productivity.

- **Lower Operational Costs:** Companies can downsize office spaces and reduce overheads, freeing up resources for investment in technology and innovation.

Revitalising Rural Economies

- **The Urban Exodus:** WFH has encouraged city-dwellers to relocate to rural areas, boosting local economies and alleviating urban congestion.
- **Decentralised Workforces:** Logistics providers can optimise their networks to serve a more geographically distributed population.

Environmental Benefits

- **Reduced Carbon Emissions:** Fewer commutes mean lower CO₂ emissions, contributing to Japan's sustainability goals.
- **Eco-Friendly Logistics:** Companies are rethinking delivery systems to align with greener practices, spurred by WFH-driven e-commerce growth.

The Resistance to WFH: A Cultural and Practical Pushback

Despite these clear benefits, resistance to remote work is growing among Japan's more traditional corporations.

Cultural Challenges

- **Face-to-Face Dependency:** Japan's business culture has long valued in-person interactions to build trust and maintain harmony. Senior executives often view remote

work as undermining these principles.

- **Hierarchical Norms:** In a society that emphasises respect for authority, many managers are accustomed to direct supervision, which WFH disrupts.

Operational Concerns

- **Collaboration and Innovation:** Companies like Hitachi and Toyota argue that in-office interactions are crucial for brainstorming, mentoring, and maintaining team cohesion.
- **Security Risks:** Industries such as finance, represented by Mizuho Financial Group, highlight data confidentiality concerns as a barrier to full-scale WFH adoption.

High-Profile Examples

- **Toyota:** The automaker has limited WFH, emphasising the importance of hands-on collaboration for its complex operations.
- **Mizuho Financial Group:** After initially embracing remote work, the bank has scaled back, citing the need for in-office synergy.
- **Fujitsu:** Once a proponent of WFH, Fujitsu is now shifting towards a hybrid model that leans heavily on office attendance.

The Logistics Industry: A Case for WFH

In logistics, the benefits of embracing WFH far outweigh the challenges:

- **Filling Labour Gaps:** Flexible remote roles in customer service, IT, and operations attract new demographics to the workforce, including part-timers and freelancers.
- **Improving Employee Retention:** Companies offering WFH options are better positioned to retain talent in a highly competitive labour market.
- **Boosting Agility:** Remote work fosters innovation, helping logistics providers adapt to the explosive growth of e-commerce.

However, the industry must also navigate cultural resistance, ensuring that digital tools and management strategies are robust enough to maintain team cohesion and productivity.

Balancing the Scales: A New Path Forward

Japan's WFH phenomenon presents a paradox: while it offers undeniable advantages, deep-seated cultural and operational resistance remains. The future likely lies in striking a balance between the two.

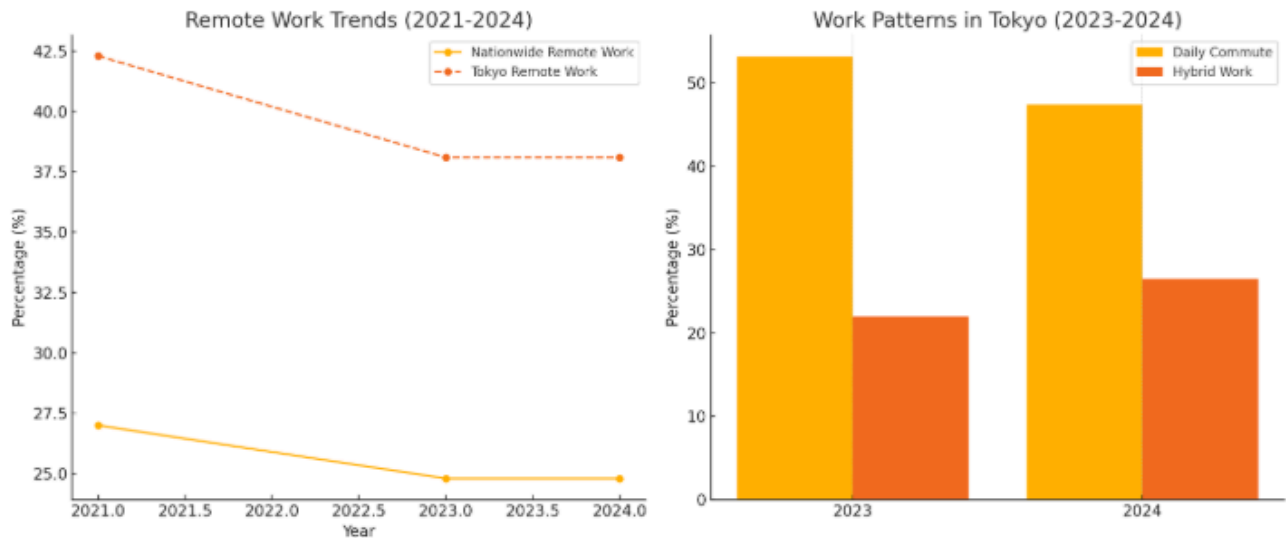
For Companies

- **Adopt Hybrid Models:** A blend of remote and in-office work can satisfy both traditionalists and modernists.
- **Invest in Technology:** Secure, seamless digital tools can address concerns about collaboration and data security.
- **Promote Flexibility:** Tailored WFH policies can attract diverse talent pools while respecting cultural norms.

For the Logistics Sector

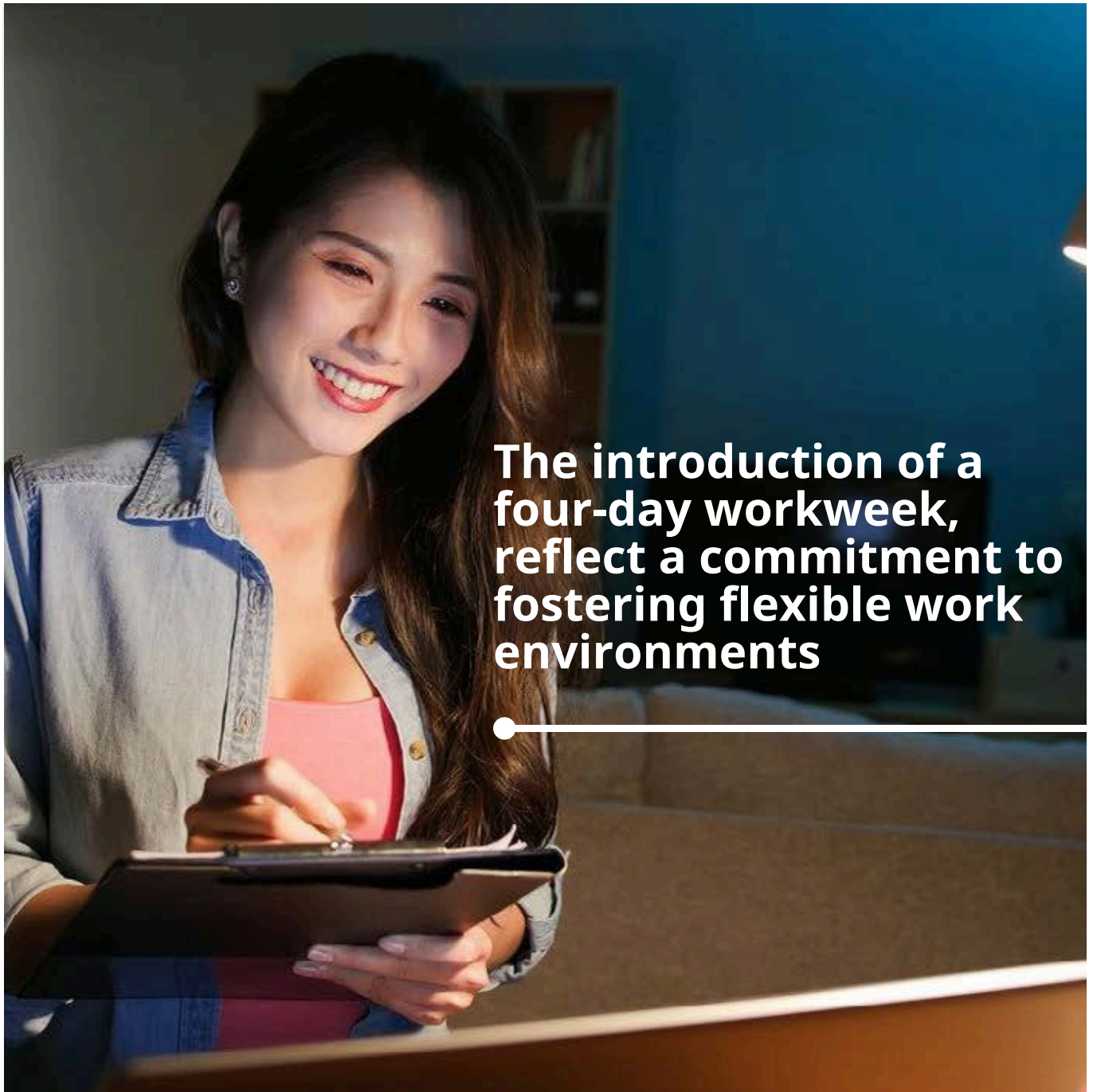
- **Lead by Example:** Logistics companies can champion WFH by showcasing its potential to drive innovation and sustainability.
- **Leverage Rural Opportunities:** By aligning WFH with regional revitalisation efforts, logistics providers can unlock untapped markets and talent.

Further emphasising this trend, a survey by Nomura Research Institute indicated that the proportion of employees at large Tokyo companies commuting to the office daily fell to 47.4% in 2024.



Source: https://www.mlit.go.jp/report/press/toshi03_hh_000128.html





The introduction of a four-day workweek, reflect a commitment to fostering flexible work environments

from 53.1% the previous year. Conversely, those working in the office three to four days per week increased to 26.5% from 22% in the same timeframe.

In response to these evolving work patterns, the Japanese government has been proactive in promoting telework. November 2024 was designated as "Telework Month," during which the Ministry of Internal Affairs

and Communications, in collaboration with other agencies, organised events and activities to encourage the adoption of flexible work styles.

Looking ahead, Japan is set to implement a four-day workweek for its 160,000 government employees starting in April 2025. This initiative aims to address the nation's declining birth rate by providing citizens

with more leisure time, potentially encouraging family growth. The move aligns with global trends where reduced workweeks have led to increased productivity and improved employee well-being.

In summary, while traditional remote work saw a slight decline in 2024, hybrid work models have gained traction in Japan. The government's initiatives, including the



promotion of telework and the introduction of a four-day workweek, reflect a commitment to fostering flexible work environments in the near future.

1. Remote Work Trends (2021-2024): This line chart shows the percentage of employees working remotely nationwide and in Tokyo. Both have seen a slight decline over the years.

2. Work Patterns in Tokyo (2023-2024): This bar chart compares the proportion of employees commuting daily to the office and those adopting hybrid work models. The shift towards hybrid work is evident.

Conclusion: An Evolving Transformation – not a revolution.

The WFH changes are transforming Japan, but it's not without its challenges. For every step forward, there's resistance from traditional structures and cultural norms. The logistics industry, positioned at the nexus of these changes, has the opportunity to lead the way, demonstrating how WFH can drive efficiency, sustainability, and inclusivity.

Ultimately, the question isn't whether Japan will embrace WFH—it's how effectively it can balance progress with tradition. For industries willing to adapt, the rewards of this transformation could be monumental.



Simon Truss
Managing Partner at
Top Transport Talent

Simon has been at the forefront of the logistics industry in Japan for more than 15 years. As co-founder of Top Transport Talent, he heads one of the only consulting, executive search and recruitment agencies dedicated to the transportation and supply chain industry in Japan.



Wayne Yoshida
Senior Talent Acquisition and
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Wayne is Senior Talent Acquisition and Attraction Manager at A.P. Moller – Maersk. With over 10 years of experience in executive recruitment and talent acquisition, he specialises in sourcing and attracting top talent for the supply chain and logistics industry.

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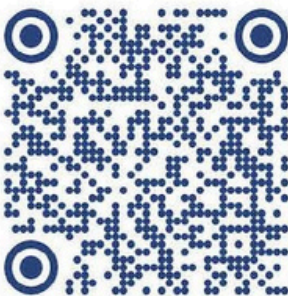
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A circular portrait of Naived Merchant, a man with a full grey beard and mustache, wearing a blue checkered blazer over a light blue shirt. The background of the portrait is a neutral grey.

FUJITSU

An Exclusive Interview with **Naived Merchant**

**Head of SAP at Fujitsu Australia
and New Zealand**

1. Tell us a little bit about your career journey thus far and what you do at Fujitsu.

My 25-year career in consulting and technology has focused on helping organisations optimise their operations and drive growth, particularly in Digital Supply Chain (DSC) management and ERP. This experience is now central to my role leading Fujitsu Oceania's SAP practice.

Through our partnership with SAP, we work closely with our clients to understand their unique challenges, providing support across the entire SAP ecosystem, from implementation and optimisation to ongoing maintenance and support. A significant focus in recent years has been on building resilient and innovative digital supply chains, helping clients navigate the complexities

and uncertainties of the current market. Fujitsu's broader expertise in Asia Pacific, encompassing cloud, security, data, and enterprise solutions, allows us to provide comprehensive support for digital transformation for businesses and governments. It's incredibly rewarding to see the positive impact our work has on our clients' businesses.

2. We are at the start of 2025. What are some of your predictions or focus areas for 2025 from a supply chain perspective?

Global trade dynamics and international economic policies are evolving at a rapid pace. Enterprises will need to focus on the following five areas in 2025 from a supply chain perspective:

1. AI and automation: Advanced AI capabilities will be increasingly integrated

into supply chains to enhance operational efficiency and responsiveness. This includes using AI for better demand forecasting, inventory management, and optimising logistics.

2. Sustainability: There will be a stronger emphasis on sustainable practices. Companies will focus on reducing their carbon footprint, using eco-friendly materials, and implementing circular economy principles.

3. Resilience and risk management: Building resilient and anti-fragile supply chains will become a priority. This means creating systems that can quickly adapt to disruptions and recover from unforeseen events.

4. Visibility and control: Enhanced visibility and control over the supply chain will be crucial. Technologies like digital twins and real-time





tracking will provide better insights and control over inventory and logistics.

5. Consolidation and M&A activity: The freight industry will see increased consolidation and mergers and acquisitions (M&A) activity. This will drive technology investment and expansion.[4]

Key recommendations for supply chain professionals and logisticians to engage include:

1. Build a data-driven enterprise with streamlined data from internal and external sources, including business behavioural data, geographic influences, source and provenance, etc., to improve decision-making regarding.

2. Customers are demanding transparency about the origins of the products they consume and the socio-economic conditions under

which they are produced. Investing in transparency and traceability across the supply chain, including raw materials and labour, is a significant competitive edge.

3. AI is a differentiator if used correctly but needs to be handled with caution. AI can simulate scenarios, predict outcomes, and optimise workloads if the right AI models are engaged but can be prone to bias if unchecked.

3. ESG and Sustainability are key areas of focus in supply chains today and many organisations say they spend more time reporting and not working on actual ways to make their supply chains more sustainable. What is your opinion on this?

Ultimately, sustainability is about action, not just reporting.

I think the concern about excessive reporting is valid.

While reporting is essential for transparency and accountability, it shouldn't overshadow the actual work of making supply chains more sustainable.

At Fujitsu, we believe in a balanced approach. Yes, we help our clients meet their reporting requirements, but our primary focus is on implementing practical solutions that drive real change. This includes:

- Optimising logistics: We leverage technology to optimise transportation routes, reduce fuel consumption, and minimise waste.
- Sourcing responsibly: We help clients source materials from sustainable and ethical suppliers, ensuring fair labour practices and environmental responsibility.
- Improving resource efficiency: We implement solutions that reduce energy

We help clients source materials from sustainable and ethical suppliers, ensuring fair labour practices and environmental responsibility



At Fujitsu, we help partners supercharge their supply chains

consumption, minimise waste generation, and promote circular economy principles.

- Embedding sustainability into processes: We help clients embed sustainability considerations into their core supply chain processes, from planning and procurement to manufacturing and distribution.

Organisations must focus on initiatives that create tangible environmental and social benefits. By working together, we can build supply chains that are not only efficient and resilient but also sustainable and responsible.

4. How can Fujitsu help its partners overcome this hurdle?





Fujitsu can help partners overcome the hurdle of excessive reporting and focus on tangible sustainability actions in several ways:

1. Streamlining data collection and reporting: We leverage technology to automate data collection and reporting processes, reducing manual effort and ensuring accuracy. This frees up valuable time for partners to focus on

implementing sustainability initiatives.

2. Providing actionable insights: We go beyond basic reporting by providing partners with actionable insights derived from their data. This helps them identify areas for improvement, track progress, and demonstrate the impact of their sustainability efforts.

3. Pre-built sustainability solutions: We offer a range of pre-built sustainability solutions that can be easily integrated into existing systems. This accelerates the implementation of sustainable practices and reduces the need for complex customisations.

4. Providing expert guidance and support: Our team of experts provides guidance and support throughout the sustainability journey. We help partners define their goals, develop strategies, and implement solutions that align with their specific needs and priorities.

By partnering with Fujitsu, organisations can shift their focus from tedious reporting to meaningful action. We empower them to make their supply chains more sustainable while also meeting their reporting obligations efficiently and effectively.

5. The ability to create the right partnerships with solution providers is often cited as a key to the success of digitisation projects. As a key enabler in this process, what do you think helps make a good and successful partnership?

From my perspective, successful digitisation projects hinge on strong partnerships with solution providers. First and foremost, we need to be completely aligned on the strategic goal, business outcome, and project goals and how our combined strengths can achieve them. It's about creating a shared vision from the get-go. Clients prefer to engage



We leverage advanced analytics and AI to identify patterns, predict potential disruptions, and optimise decision-making

partners to leverage the experience and expertise they offer. This is a key differentiator that can improve clients' transformation journey.

Collaboration is key. We need to be willing to brainstorm solutions, solve problems, and adapt to changes together. Having clearly defined roles and responsibilities ensures everyone knows what's

expected of them, and it fosters mutual respect for each other's expertise. Open communication is vital. We need to be transparent with each other—sharing updates, challenges, and successes honestly. This builds trust, which is the bedrock of any successful collaboration. We need to be confident in each other's capabilities and commitment. Ultimately, the partnership

should focus on creating value and achieving measurable outcomes. We need to build a relationship that goes beyond this one project, always striving for continuous improvement and learning from each other. That's how we ensure long-term success.

6. How does Fujitsu help partners supercharge their supply chain with real-time visibility?

At Fujitsu, we help partners supercharge their supply chains with real-time visibility by leveraging our expertise in SAP solutions and our deep understanding of supply chain complexities. We offer a range of services and solutions that empower businesses to gain end-to-end visibility and control over their supply chain operations.

Firstly, we help integrate data from various sources, including ERP (Enterprise Resource Planning) systems, IoT (Internet of Things) devices, and external partners, into a centralised platform. This provides a single source of truth and real-time insights into inventory levels, production processes, and logistics.

Secondly, we leverage advanced analytics and AI to identify patterns, predict potential disruptions, and optimise decision-making. This allows businesses to proactively address issues, mitigate risks, and improve overall efficiency. Thirdly, we offer solutions that enhance collaboration and communication across the supply chain ecosystem. This enables seamless information sharing, improved coordination, and faster response times to unexpected events.

By combining our technological expertise with our industry knowledge, we empower partners to achieve real-time visibility, improve agility, and build more resilient supply chains.

7. Industry 4.0 is an 'old' buzzword, and so is digitalisation, but what does this actually mean to Fujitsu?

Indeed, terms like 'Industry 4.0' and 'digitalisation' have been around for a while, and sometimes they can feel a bit overused. But at Fujitsu, we see them as more than just buzzwords. They represent a fundamental shift in how businesses operate and a real opportunity for our customers to transform and thrive. For us, Industry 4.0 is about harnessing the power of digital technologies to create intelligent, connected, and ultimately more efficient operations. This includes everything from leveraging IoT and AI to optimise production processes to implementing cloud-based solutions for greater agility and scalability.

Digitalisation, in our view, is about using these technologies to create new value and improve business outcomes. It's about connecting people, processes, and data in new ways to drive innovation, enhance customer experiences, and ultimately achieve sustainable growth.

We're not just talking about theory; we're actively helping our clients put these concepts into practice. We're implementing smart factories, building intelligent supply chains, and developing innovative digital solutions that address real-world challenges.

So, while the buzzwords may fade, the underlying principles of Industry 4.0 and

digitalisation remain central to our approach at Fujitsu. We're committed to helping our clients navigate this evolving landscape and unlock the full potential of these transformative technologies.

8. APAC is a very diverse region. Are there sub-geographic differences in the implementation and adoption of what Fujitsu is offering?

That's a very astute observation. APAC is incredibly diverse, not just in terms of cultures and languages, but also in levels of digital maturity and economic development. And yes, absolutely, we see sub-geographic differences in the implementation and adoption of our offerings. For instance, in more mature markets like Australia and Singapore, we see a strong focus on advanced technologies like AI and machine learning and a greater emphasis on cloud adoption and digital transformation initiatives. In contrast, some emerging economies in Southeast Asia may be earlier in their digitalisation journeys, with a greater focus on foundational technologies and building core digital infrastructure.

We recognise these nuances and tailor our approach accordingly. We work closely with clients to understand their specific needs and challenges, taking into account local market conditions, regulatory

environments, and industry dynamics.

This might involve adapting our solutions to fit specific requirements, providing customised training and support, or collaborating with local partners to ensure successful implementation.

Our goal is to empower businesses across the APAC region, regardless of where they are in their digital transformation journey. We believe that technology can be a powerful enabler of growth and progress, and we're committed to making it accessible to everyone.



Naive Merchant
Head of SAP at Fujitsu
Australia and New Zealand

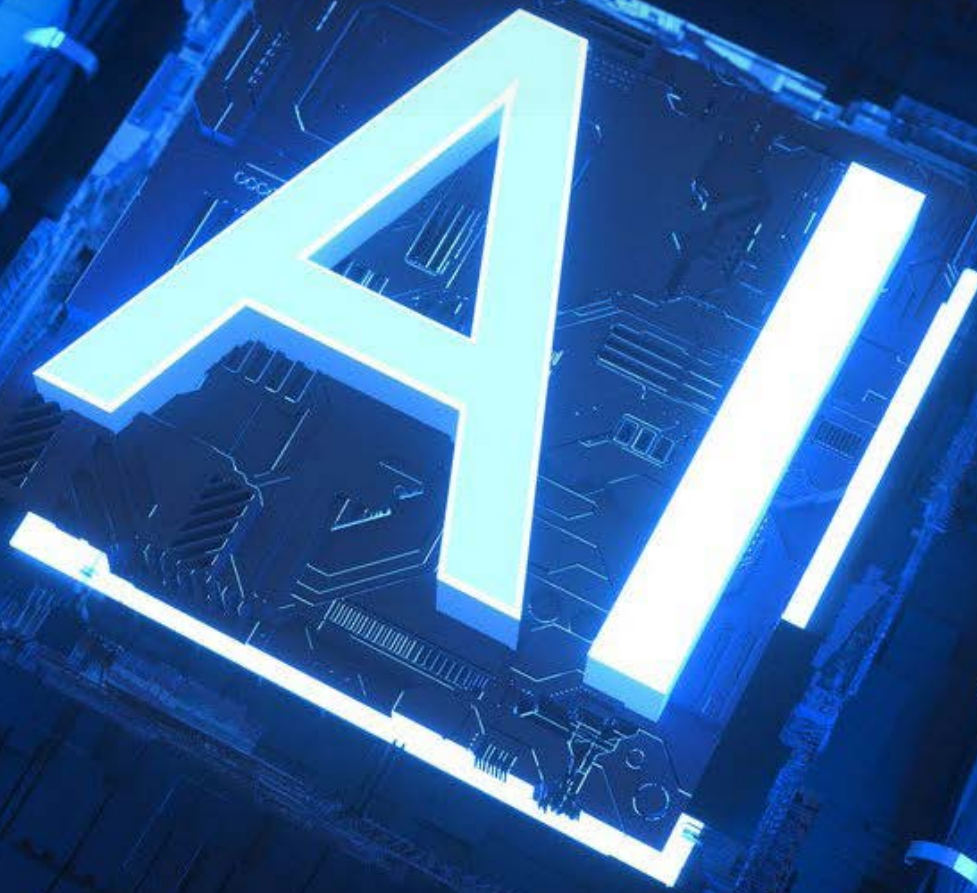
Naive Merchant has two decades of proven leadership experiences in digital transformation advisory and delivery of complex enterprise technology programs focused on organisations improve their business IT engagement and achieve productivity through innovation, optimisation and future ways of efficient working



Our goal is to empower businesses across the APAC region

The Promise and the Paradox of Agentic AI in Supply Chains

By Siva Devarakonda
CEO & Founder of Flexify.AI Inc.



 Flexify.ai

Global logistics complexity, persistent material shortages, rising geopolitical tensions, and regulatory and cost pressures have put supply chains at a critical crossroads. Agentic AI—what many are calling the next frontier of automation—promises rapid, intelligent decisions that outpace traditional software approaches. Yet confusion abounds: is Agentic AI merely old software with a chat interface, or can it genuinely reshape supply chain operations?

In this article, we'll explore:

Why agents are clashing with legacy SaaS approaches and confounding leaders

The most pressing concerns supply chain executives face

The current state of AI adoption

Key technology trends that will

drive future innovation

Steps for leaders who want to act now while AI solutions evolve

1. The AI vs. SaaS Dilemma: Why Leaders Are Confused

A common frustration among supply chain leaders is how quickly every software vendor has begun touting “AI-driven” capabilities. Incumbent SaaS providers, in particular, are adding natural language chat interfaces to existing solutions, prompting scepticism:

Isn't this just the same old platform with a new UI?

“Isn't this just the same old platform with a new UI?”

AI Aspirations vs. Reality

True Agency or Rule-Based Automation? Many “agentic AI” products today focus on transaction automation based on preset rules rather than orchestrating multi-step

decisions on their own.

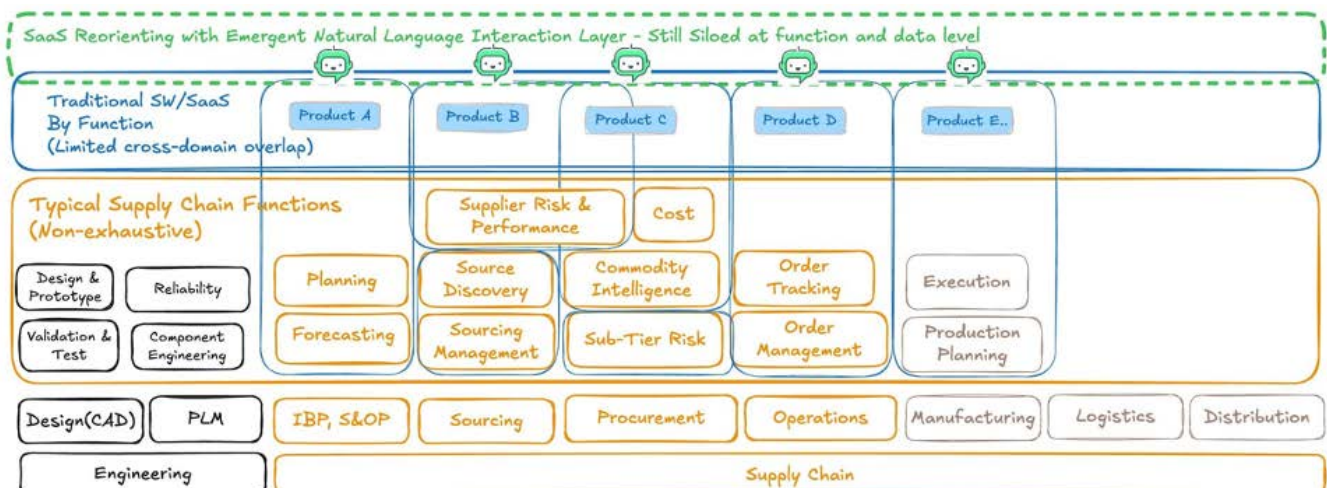
New Startups Everywhere Tech entrepreneurs are popping up with vertical “micro-solutions” that claim to automate specific tasks—e.g., purchase order generation or supplier onboarding. This abundance of options overloads leaders, making it tough to discern hype from real innovation.

The Core Challenge: Leaders want more than a slick interface. They want systems that can recommend or even autonomously take strategic actions, not just replicate existing workflows.

Typical Enterprise SaaS Stack: Overlay of Emerging Natural Language Agent Interfaces on Incumbent SaaS

2. Key Concerns from Supply Chain Executives

Despite excitement about the possibilities of AI, leaders must tackle several foundational issues:



Typical Enterprise SaaS Stack: Overlay of Emerging Natural Language Agent Interfaces on Incumbent SaaS

• Data Readiness

AI's potential hinges on clean, harmonised data. Many organisations realise their data quality—across ERP, PLM, and procurement systems— isn't up to par.

• Trust in AI Decision-Making

Will AI choose the right supplier or order quantity in ambiguous scenarios? Leaders want visibility into how AI reaches its conclusions and an option for human review.

- Integrate with legacy systems or rip and replace systems of record?

Supply chain operations often run on multiple, decades-old platforms. Leaders are caught in an impasse of whether to do a full-scale replacement

with a digital strategy or get incremental value which relies on integrations.

• Security & Data Privacy

CIOs and CISOs worry about giving AI-driven tools access to sensitive internal and partner data. Clear governance and compliance frameworks must be in place; in many cases, enterprise generative AI policy is evolving cautiously.

• Handling Complex, Non-Standard Processes

Supply chains frequently rely on human “tribal knowledge and glue processes. Leaders question if AI can adapt to these messy realities without extensive customisation.

• Human Oversight & Workforce Impact

While AI could free up teams

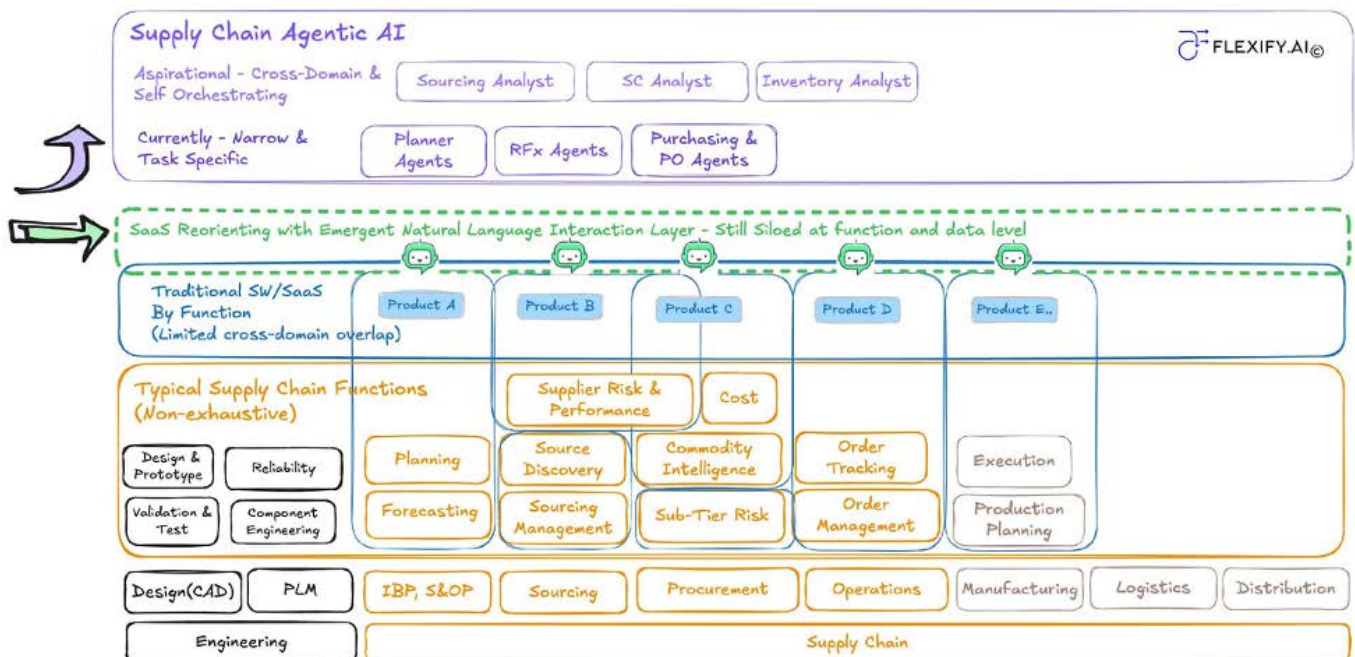
for more strategic tasks, the fear of job displacement lingers. Most leaders see AI as a “co-pilot” to accelerate decisions and reduce tedious work rather than replace people entirely.

3. The Current State of Evolution

Early-Stage Potential, Incremental Progress

Limited Autonomy Current AI agents are primarily narrow. They handle well-defined tasks (e.g., automated PO approvals), but no real benchmarks exist in demonstrating success with end-to-end orchestration.

Big Appetite for Pilot Projects Many organisations want to start small—test AI in one part of the supply chain, measure impact, and expand from



Emerging Vertical AI Agents Across All Functions Spanning Engineering, Procurement, Supply Chain, Manufacturing and Logistics.

there.

Emerging Vertical AI Agents Across All Functions Spanning Engineering, Procurement, Supply Chain, Manufacturing and Logistics.

AI as a Force Multiplier

Shifting from Tactical to Strategic With manual tasks automated, supply chain pros can focus on higher-value activities: supplier development, advanced scenario planning, and risk mitigation.

Scaling Decision-Making: AI can help scale cognitive capacity by absorbing and responding to real-time data continuously.

4. Technology Trend – The Shrinking Gap between

Intelligence and Action

Perhaps the biggest promise of generative AI is narrowing the gap between predictive intelligence and rapid action. Enterprises have had their share of disillusionment with predictive analysis ultimately not leading to action that has measurable ROI.

Current State of Traditional Supply Chain SaaS Software Siloed & Strictly Left to Right (Not Agile, Fragile)

Emerging frontier models allow us to combine vast external knowledge (GPT 4.0, 4.5), the power of advanced reasoners (like O1, O3, etc.) for analysis and scenario planning with operational orchestrators (like Operator, Agent-E, etc.) paving the way for real-time task automation

and self-orchestration. This is rapidly reshaping the stack and shrinking the gap between intelligence, planning and action.

Frontier Models and Generative AI's Potential to Reshape Response Times in Supply Chains

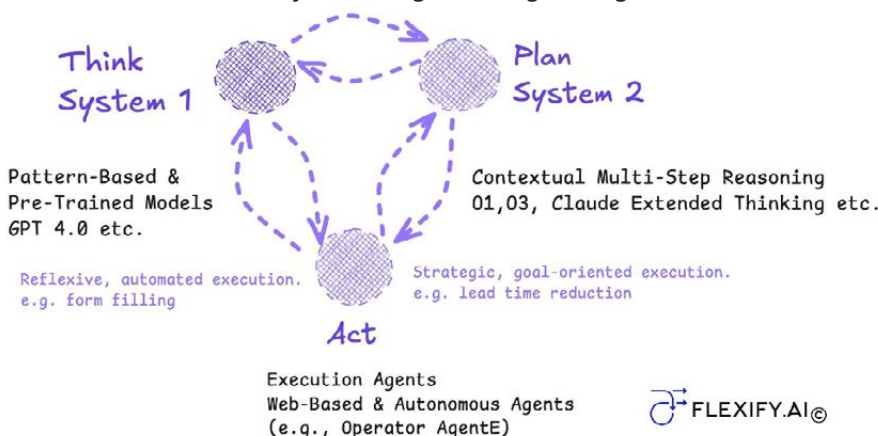
5. Pragmatic Path Forward

Frontier AI models offer increasingly advanced NLP and machine learning capabilities, hinting at self-orchestrated supply chain operations in the future—though true autonomy remains aspirational for now. Generative AI can cleanse and unify messy enterprise data, paving the way for more effective insights and recommendations. Meanwhile, cloud-native integrations and modernised infrastructure help organisations share data in real time but also bring heightened focus to security and governance. Robust guardrails—including clear compliance standards, model auditing, and well-defined oversight—will be essential as AI maturity grows. A balanced approach, as suggested here, often works best:

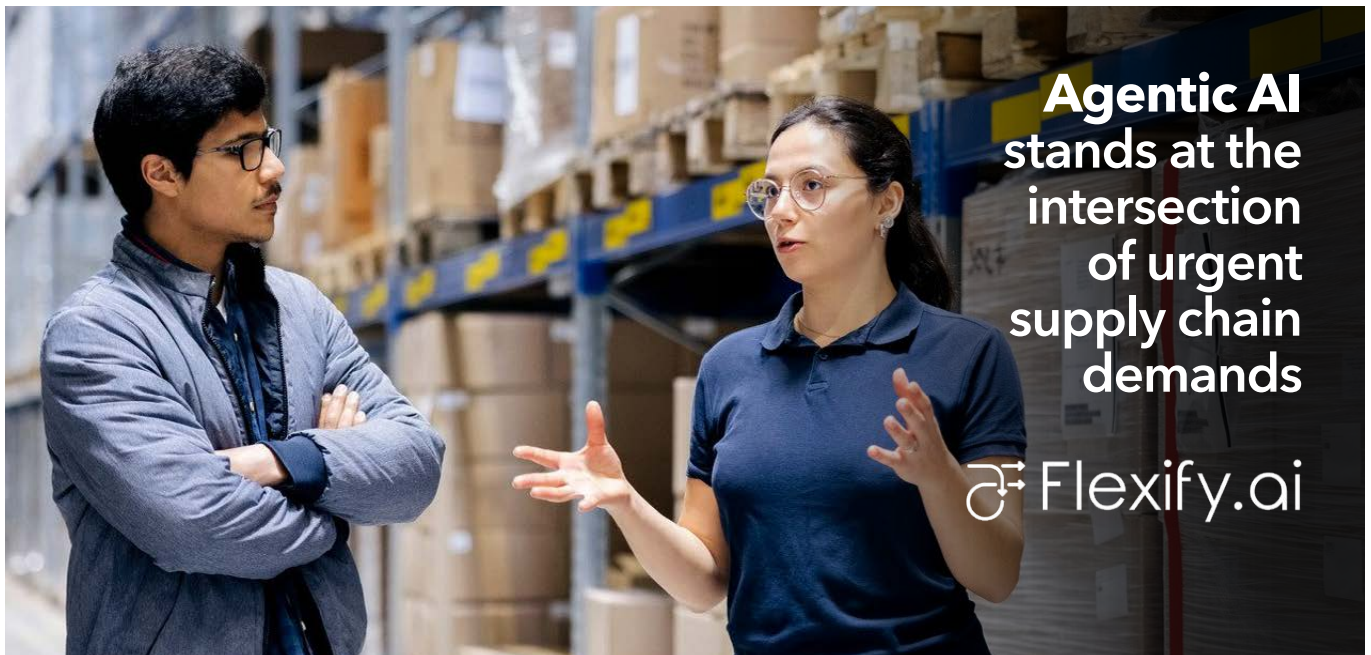
- Pilot & Iterate: Tackle specific, high-volume tasks to validate ROI.
- Invest in Data Governance: Strengthen data quality and consistency.



Current State of Traditional Supply Chain SaaS Software □ Siloed & Strictly Left to Right (Not Agile, Fragile)



Frontier Models and Generative AI's Potential to Reshape Response Times in Supply Chains



Agentic AI stands at the intersection of urgent supply chain demands

 Flexify.ai

- **Establish Clear Governance and Guardrails:** Define who oversees decisions and how data is secured.
- **Focus on Workforce Enablement:** Use AI to reduce repetitive work and address job concerns through transparent communication.
- **Keep an Eye on the Ecosystem:** Track both emerging startups and established players, ensuring your architecture remains flexible.

6. Conclusion

Agentic AI stands at the intersection of urgent supply chain demands and accelerating technological innovation. While it promises significant gains—from automating repetitive tasks to enabling faster, data-driven

decisions—successful implementation requires careful planning around data, security, and governance. By starting with small, strategic pilots, solidifying data foundations, and empowering teams, organisations can build trust in AI and scale at the right pace. This measured approach ensures that investments align with a broader digital strategy, positioning the supply chain for greater resilience and competitive advantage in a volatile global landscape.

Curious? Learn more at <https://flexify.ai/>



Siva Devarakonda
CEO & Founder of Flexify.AI Inc.

Siva Devarakonda, CEO & Founder of Flexify.AI Inc., is pioneering AI-powered supply chain agents to supercharge teams, streamline sourcing, and mitigate supplier risks. With deep expertise in Industry 4.0, semiconductors, and manufacturing, she is driving agility and resilience in an increasingly volatile market. Having led high-impact AI deployments at Fortune 500 companies like Lam Research, GE, and Raytheon Technologies, Siva has delivered multimillion-dollar ROI, holds multiple supply chain AI patents, and has scaled AI at startups. A recognised leader in digital transformation, she is passionate about empowering supply chains to navigate uncertainty with confidence.

The Future of Halal Supply Chains: AI and Blockchain Revolutionising Compliance

Dr. Albert Tan, PhD
Associate Professor and
Academic Program Director
at Asian Institute of
Management

Dr. Nursery Alfaridi Nasution
Lecturer and Head of Cooperative
Affairs at ITL Trisakti and a tutor
at Bina Nusantara University

Introduction The global halal market is rapidly expanding, driven by increasing consumer demand for ethical and sustainable food products. However, ensuring halal compliance across complex supply chains remains a significant challenge due to fragmented information, difficulties in tracing product origins, and a lack of standardisation. Emerging technologies like artificial intelligence (AI) and blockchain are poised to transform the halal certification process, enhancing transparency, efficiency, and consumer trust.

As the world becomes more interconnected, halal supply



chains must evolve to meet the expectations of a diverse consumer base. Traditional methods of halal certification, which rely heavily on manual inspections and paperwork, are increasingly proving inadequate in addressing modern-day supply chain complexities. The integration of AI and blockchain into halal certification processes presents an opportunity to revolutionise the industry, ensuring that products maintain integrity, compliance, and traceability.

The Challenge of Halal Compliance Halal, meaning "permissible" in Arabic, extends beyond food restrictions to include ethical sourcing, production, and handling. Maintaining compliance throughout the supply chain is difficult due to:

- Lack of knowledge and awareness among stakeholders
- Risk of cross-contamination with non-halal products
- Complex and time-consuming certification processes
- Variability in global halal standards
- Fraudulent claims and misrepresentation of halal status

These challenges underscore the need for a holistic framework integrating

modern digital technologies to ensure consistent and trustworthy halal certification. With increasing globalisation, ensuring halal integrity becomes even more complex, as ingredients are sourced from multiple regions, each with different regulatory frameworks. This fragmentation creates potential risks that may compromise the halal status of food products, making it imperative for businesses to adopt innovative solutions.

AI and Blockchain: A Game-Changer for Halal Certification
AI and blockchain technologies offer innovative solutions to the pressing issues in halal supply chains, as shown in figure 1. AI can automate compliance checks, detect anomalies, and analyse product ingredients for halal suitability. Blockchain, with its secure and immutable ledger, ensures product traceability from farm to fork, preventing fraud and enhancing consumer confidence.

These technologies are particularly valuable in markets where halal certification is scrutinised by regulators and consumers alike. For example, in countries with large Muslim populations such as Indonesia, Malaysia, and the Middle East, the demand for transparent and verifiable halal certification is higher than ever. AI and blockchain provide real-time verification mechanisms that ensure compliance with stringent halal standards while also addressing the challenge

of harmonising different halal regulations across jurisdictions.

How AI Enhances Halal Compliance AI-driven systems can revolutionise halal certification by:

- Automating ingredient validation through machine learning models
- Using knowledge graphs to verify relationships between products, manufacturers, and certifications
- Employing predictive analytics to assess supply chain risks
- Enhancing regulatory compliance through AI-powered monitoring systems

Machine learning models can classify food products as halal or non-halal based on ingredient composition. Large language models (LLMs) like ChatGPT can further enhance transparency by explaining classification decisions in human-readable language, making the certification process more interpretable. Additionally, AI-driven systems can analyse large datasets from multiple suppliers and detect inconsistencies that might otherwise be overlooked by human inspectors. Furthermore, AI can assist in real-time monitoring of halal supply chains. Image recognition algorithms, for instance, can be used to detect non-halal contaminants in

processing plants, ensuring that cross-contamination risks are minimised. AI-powered audits can also reduce the burden on certification bodies by streamlining inspections and flagging potential violations before they occur.

Blockchain for Traceability and Trust Blockchain technology ensures halal product integrity by:

- Providing a decentralised, tamper-proof record of transactions
- Enabling smart contracts to automate compliance verification
- Enhancing transparency by allowing consumers to trace

product origins

- Preventing fraudulent halal claims through secure authentication

For example, a smart contract could automatically validate whether a product meets halal standards based on blockchain-stored certification data. If an inconsistency arises, it triggers an alert for further review, reducing human error and administrative overhead. This decentralised verification system makes it more difficult for fraudulent claims to go undetected, ensuring that only truly halal-certified products reach consumers.

Blockchain facilitates cross-border halal trade by harmonising standards across different regulatory

bodies. As a single, unified ledger accessible by all stakeholders, blockchain reduces discrepancies and inefficiencies that arise from varying certification processes. This can significantly boost consumer confidence in imported halal goods, as the blockchain provides an immutable record of every step in the supply chain.

Real-World Application: A Holistic Framework A proposed AI-blockchain integrated framework for halal certification is shown in Figure 1. This framework represents a digitalised supply chain model that integrates blockchain, smart contracts, and artificial intelligence (AI) to enhance visibility, traceability, and decision-making. It consists of multiple layers, ranging



from physical supply chain processes to stakeholder interactions and decision support systems.

This framework represents a digitalised supply chain model that integrates blockchain, smart contracts, and artificial intelligence (AI) to enhance visibility, traceability, and decision-making. It consists of multiple layers, ranging from physical supply chain processes to stakeholder interactions and decision support systems.

At the top level, stakeholders are categorised into three groups: core stakeholders, who are directly involved in supply chain operations; supporting stakeholders, who assist in the execution of supply chain activities; and influential stakeholders, who play a role in decision-making

and regulatory compliance.

Enterprise systems and decision support systems play a crucial role in managing business processes and integrating data. These systems provide the necessary tools to analyse information and assist in making strategic and operational decisions.

The integration of digital technologies further strengthens the framework. Blockchain ensures data security and transparency by creating immutable records of transactions. Smart contracts automate transactions and enforce agreements without the need for intermediaries. Artificial intelligence enhances data analytics and predictive decision-making, allowing for better forecasting and optimisation.

Infrastructure management oversees the communication networks, data flow, and system security, ensuring that information is transmitted efficiently and securely across the supply chain. The information flow layer facilitates the exchange of data between stakeholders, systems, and infrastructure, enabling seamless coordination and decision-making.

Communication technologies, including QR codes, cameras, Bluetooth, RFID sensors, barcodes, smart sensors, scanning, and the Internet of Things (IoT), enable real-time data collection and monitoring. These technologies provide critical insights into supply chain activities, allowing businesses to track products, monitor environmental conditions, and



Blockchain ensures data security and transparency by creating immutable records of transactions

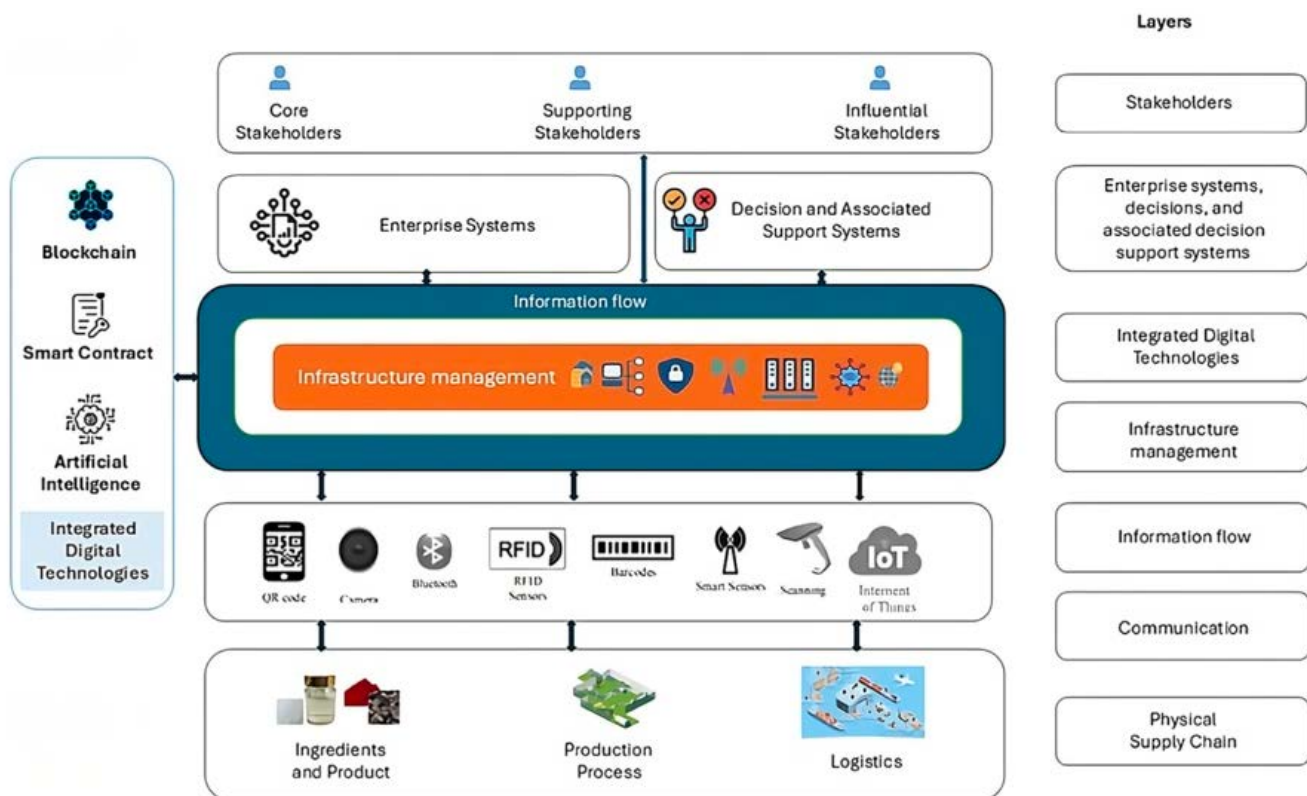


Figure 1: Architecture of a Digitally Integrated Supply Chain with Digital Technologies

detect potential disruptions.

At the physical supply chain level, the framework covers three essential components. The first is the ingredients and product stage, which involves raw materials and finished goods. The second is the production process, where manufacturing or processing takes place. The third component is logistics, which ensures the transportation and distribution of products to their intended destinations.

Overall, this framework enhances supply chain efficiency by leveraging digital technologies to improve transparency, reduce fraud, ensure regulatory compliance, and enable predictive analytics. The integration of these advanced technologies supports real-time monitoring,

ensures data integrity, and enhances decision-making, making it a valuable model for modern, resilient supply chains.

The Challenges in Adoption

The high costs of implementing AI and blockchain in halal supply chains can be a major challenge for businesses, limiting their ability to adopt these technologies. To address this issue, government support in the form of subsidies and financial incentives is crucial. By reducing the financial burden, businesses can more easily integrate digital halal certification systems, enhancing compliance, transparency, and efficiency across the supply chain. This approach not only facilitates industry growth but also

ensures that halal certification remains accessible and reliable for global consumers.

The integration of blockchain in halal certification requires industry collaboration to develop standardised frameworks, ensuring consistency and transparency across supply chains. However, regulatory inconsistencies across different regions pose challenges in establishing uniform standards, making it essential for stakeholders to work together in harmonising certification criteria. Blockchain's decentralised nature can help bridge these gaps by providing a universally accessible and tamper-proof system, but without regulatory alignment, its effectiveness remains limited. Therefore, a coordinated effort between governments, certification

bodies, and industry leaders is crucial to overcoming these discrepancies and achieving a seamless halal certification process.

Many firms lack the necessary expertise to implement and manage AI and blockchain systems. Comprehensive training programmes and capacity-building initiatives are crucial to equipping businesses with the skills required for successful integration. Hence, providing targeted training programmes to stakeholders, addressing the complexities of AI and blockchain integration in halal supply chains, and equipping them with the necessary technological expertise to facilitate seamless adoption.

The Future of Halal Supply Chains

The integration of AI and blockchain in halal supply chains paves the way for greater transparency, efficiency, and consumer confidence. While challenges remain in terms of adoption and standardisation, the potential benefits far outweigh the hurdles. As regulatory bodies and industry stakeholders collaborate to embrace these technologies, the halal industry is set to become a model for digital transformation in ethical food production.

Future advancements in AI may allow for even greater automation in the halal certification process. AI-driven

predictive analytics could help anticipate supply chain disruptions, while blockchain-based halal traceability systems could be integrated with mobile applications to provide consumers with instant verification of a product's halal status.

The halal industry has a unique opportunity to be at the forefront of digital transformation. With the increasing demand for transparency in food production, AI and blockchain provide the ideal tools to uphold the integrity of halal certification while enhancing operational efficiency.

Conclusion AI and blockchain are reshaping the future of halal certification, offering automated compliance verification, secure traceability, and enhanced consumer trust. By leveraging these technologies, businesses can ensure their products meet halal standards while optimising their supply chains. The future of halal supply chains is digital, transparent, and ready for the next wave of technological innovation.

As adoption grows, the global halal market will likely see improved regulatory coherence, reduced fraudulent activities, and heightened consumer confidence. The time to embrace AI and blockchain in halal certification is now, ensuring a secure, sustainable, and ethical future for halal supply chains worldwide.



Dr. Albert Tan, PhD
Associate Professor and
Academic Program Director
at **Asian Institute of
Management**

Albert Tan, PhD joined the Asian Institute of Management faculty in 2022 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 was a visiting professor at NUS-Singapore, MIT SCALE Network, Wollongong-Dubai, Mahidol-Thailand as well as in Indonesia and Vietnam. He has published his research works in numerous journals.



Dr. Nursery Alfaridi Nasution
Lecturer and Head of
Cooperative Affairs at **ITL
Trisakti** and a tutor at **Bina
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Dr. Nursery Alfaridi Nasution, a logistics and supply chain expert, holds a Doctor of Research in Management from Bina Nusantara University (2024), specialising in the circular economy. She is a lecturer and head of cooperative affairs at ITL Trisakti and a tutor at Bina Nusantara University. With experience in project management at DHL Global Forwarding, she advances research, education, and sustainable logistics while contributing to the Halal Supply Chain Centre at ITL Trisakti.

ARTIFICIAL INTELLIGENCE AND GENERATIVE AI – The New Frontier in Supply Chain Management

By Dr Shereen Nassar

Global Director of Logistics Studies and
Director of MSc Logistics and Supply
Chain Management Suite at Heriot-Watt
University Dubai

The evolution of artificial intelligence (AI) has transformed and disrupted the major industries of the world, including supply chain management. With the need for efficiency, agility and resilience, AI, along with its subset Generative AI (GenAI), is changing the operations of supply chains. AI-powered processes from demand forecasting to logistics accomplishment greatly augment the measure of effectiveness while cutting expenses and increasing operational productivity. With the precise foresight, AI allows businesses to improve the accuracy of processes along

with predicting future trends in supply chain management. The adoption of machine learning (ML), predictive analytics, and robotic process automation (RPA) as AI technologies greatly enhances the performance of the supply chain.

The predictive models that AI analyses are based on past sales, market activity, and some exogenous factors; this enables the forecast of demand in the market. Stockouts and idle inventory are minimised, which helps maintain the right balance of stock. Repetitive processes like inventory monitoring

and stock counting can be performed by generative AI, which can help in reducing expenses and increasing security. Businesses can further refine their activities by enforcing these policies and concentrating on more valuable processes, which increases efficiency throughout the supply chain. Leading retailers like Walmart and Amazon use AI to improve inventory management and reduce disruption of the supply chain. In addition, other companies could use AI for improving route planning by considering traffic, weather, and delivery times. Different companies save on fuel costs and cut down



the time required to complete deliveries by utilising AI-based logistics platforms. They do this by preparing plans for routes that are likely to be the most efficient. Tools based on AI technologies measure certain indicators, monitor exposure to risks, and analyse vulnerabilities in the supply chain in real-time. With these tools, businesses make better decisions as to how and where to source materials while being alerted to multiple potential disruptions.

At the same time, AI has the ability to provide suppliers, procurement, and other stakeholders with actionable insights on the performance and supply chain as a whole. Reports can be tailored to suit each team's particular needs, enabling them to make proactive decisions while also controlling expenditure. In the case of supplier management

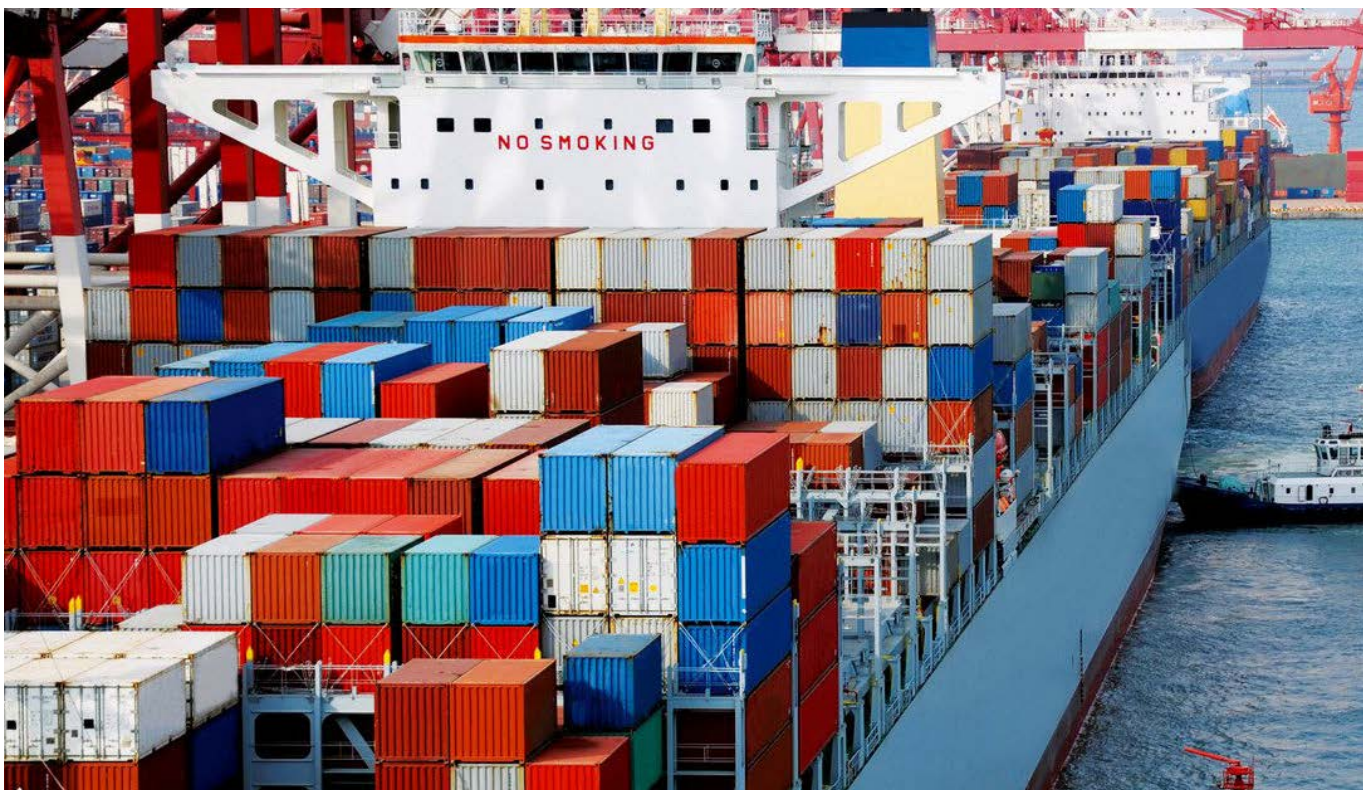
and selection, Generative AI can provide value by analysing suppliers' databases and their historical performance to make better-informed decisions.

It can also automate processes such as supplier onboarding, negotiate favourable terms, and carry out supplier selection. This allows the procurement unit to concentrate on more strategic processes. AI technology streamlines the processes of contract creation, review, and management within contract management. It can retrieve important information, monitor company policy compliance and local legal requirements, and create new contracts from existing templates. This mitigates time and energy and reduces risks associated with errors in contract management.

A manufacturer's ability to

maintain high standards is one of the most critical factors of competitiveness in the market. Modern technologies, and particularly AI, are changing the ways that quality control is done. AI-computer vision, for example, scans products throughout the industrial process for defects that humans might miss while inspecting. In addition, AI-driven quality control has the capability to reduce waste and the costs needed to redo work or call back products by identifying more precisely when defects are present. For manufacturers, this means resource optimisation, efficiency, and sustainability of production.

Moreover, predictive maintenance applies artificial intelligence to keep track of the status of the equipment, which helps to avoid unanticipated breakdowns and minimises





Addressing sustainability challenges in supply chain management continues to grow in importance

the idle time. In addition, warehouse processes such as picking, packing, and even tracking stock are performed more efficiently with the aid of AI robots and autonomous systems. Fulfilment centres, like the ones owned by Amazon, utilise the aid of AI-powered robots to increase productivity. Amazon propels robotics in their businesses by announcing the next generation of these robots, the AI-powered fulfilment centres, which have ten times the count of normal ones.

Addressing sustainability challenges in supply chain management continues to grow in importance, and the role of both AI and generative AI is critical. Artificial intelligence reduces emissions while ensuring regulatory compliance by optimising energy utilisation,

transportation capacity, and sourcing methods. Generative AIs further identify chances to enhance carbon emissions reduction and waste minimisation towards more ethical sourcing through scenario analysis and optimisation algorithms. This kind of emerging technology aids businesses in being more sustainable and responsible and in supporting global sustainability objectives as well as strengthening their corporate social responsibility.

Regardless of the AI revolution's prospects, including generative AI in supply chain management, there remain major hurdles to be overcome, including data privacy and security issues. AI-powered supply chains are dependent on vast amounts of sensitive data, such as

customer accounts, supplier contracts, and transaction logs. There is also a need to comply with several data protection laws to escape negative repercussions. Firms have to adopt well-defined cybersecurity policies, encryption standards, and access control measures, which compromises transparency in AI operations to a certain degree.

Another substantial barrier lies where AI is expected to integrate with existing supply chain systems. A good percentage of companies still function under a framework that is incapable of supporting automation and AI-based analytics. Adopting AI-based tools can be a long and tedious process in terms of new technology purchases, integrations,

and reengineering existing processes. If not properly planned, the adoption of AI tools may result in negative effects instead of benefits. A gradual methodology should be adopted to restrict sudden alterations, including modification of legacy systems and AIs integrated with old procedures.

There are considerable risks regarding the incorporation of AI technology due to ethical issues and biases within the algorithms. AI models are trained on historical data, which means they can replicate supplier selection, pricing, and even workforce allocation biases, resulting in detrimental decisions. Left unchecked, these biases can cause reputational harm, operational inefficiencies, and heightened scrutiny from regulators. Corporations must ensure ethical governance in AI systems by performing bias audits, algorithmic modifications, and thorough AI decision-making transparency. In order to sustain equity and trust in the supply chain processes, established boundaries for responsible use of AI should be formulated.

Nevertheless, a crucial issue remains: the availability of a competent and skilled workforce to operate AI-enabled supply chains. AI adoption often requires specialised employees in data science, machine learning, and AI model development. Yet, most supply chain professionals do not have sufficient technical skills. Supply

chain management utilising AI involves the building, training and fine-tuning of AI models, interpreting the insights, optimising the automation tools, and managing the predictive analytics systems. The widening skills gap is a challenge to the successful deployment of AI; therefore, businesses must make workforce development a priority. Businesses should ramp up investments in reskilling and upskilling programmes to include AI-based analytics, automation, and digital supply chain management. Partnerships with universities, technical colleges and online course providers will enable students to successfully learn how to manage AI-powered supply chains. Employing AI experts, creating an environment for lifelong learning, and incorporating AI into corporate training programmes will promote sustained implementation of AI solutions.

Tackling these issues is paramount for companies that use AI and generative AI within supply chain management. Organisations can fully exploit the opportunities offered by AI-powered supply chains by enhancing cybersecurity, upgrading infrastructure, implementing ethical AI techniques, and training staff. These measures will increase operational efficiency and resilience, fostering innovation and competitiveness in an ever-evolving digital global economy.



Dr. Shereen Nassar

Global Director of Logistics Studies and Director of MSc Logistics and Supply Chain Management Suite at Heriot-Watt University Dubai

Dr Nassar's main research interest is sustainability and supply chain resilience. She has published a number of research papers and book chapters in areas such as automotive recall risk and social sustainable supply chain performance, sustainable maritime logistics, supply chain information security, contemporary disruptive business applications of blockchain technology, smart cities and implementation challenges.



Geek+

Post-Event Summary



This month, we're highlighting an exclusive roundtable hosted by GEEK+ in partnership with LogiSYM, where top logisticians and systems integrators in Malaysia and Singapore explored the future of warehouse robotics and automation. The discussion focused on the growing and pressing need for intralogistics automation. Guests explored how GEEK+ evolving solutions are reshaping intralogistics automation.

The event included a very lively and engaging panel led by the Logistics & Supply Chain Management Society President, Dr. Raymon Krishnan, with Jonathan Kum and Terence Chan from GEEK+ and Dr. Ishkandar Baharin, the President of the Malaysia Robotics & Automation Society (MYRAS), offering deeper insights into the future of intralogistics automation and, more specifically, how to consider, engage and implement such solutions, taking a holistic and comprehensive view of not just immediate commercial outcomes but also long-term strategic needs of organisations seeking to implement such automation solutions.

The final session looked at the significant benefits and growth opportunities.

With a blend of insightful conversation, product exploration, and a world-class international buffet, the roundtable provided valuable takeaways for leaders eager to drive innovation in intralogistics optimisation and for systems integrators and resellers to recognise the benefits of partnering with a world-renowned brand like GEEK+.

Dr. Raymon Krishnan



Dr. Raymon Krishnan

Dr. Raymon has over thirty years' experience in Supply Chain Management as an end user, consultant, educationist and service provider. This includes senior management, government linked and academic positions in a variety of international companies and institutions based in Asia, the US, Middle-East, Europe and Australia. His experience covers the full Supply Chain spectrum, from raw material procurement to physical distribution and eventually Customer Service and care, with a strong grounding in Quality and Six Sigma.

Jointly Organised By:



Held In Conjunction With:

The main title graphic for the event. It features a green silhouette of a human head in profile, facing left, with several interlocking green gears inside. To the right of the head, the word "LogiSYM" is written in a large, dark grey sans-serif font. Below "LogiSYM", the word "PHILIPPINES" is written in white capital letters inside a solid green rectangular bar. To the right of this bar, the year "2025" is written vertically in a large, green sans-serif font.

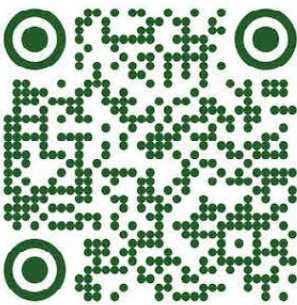
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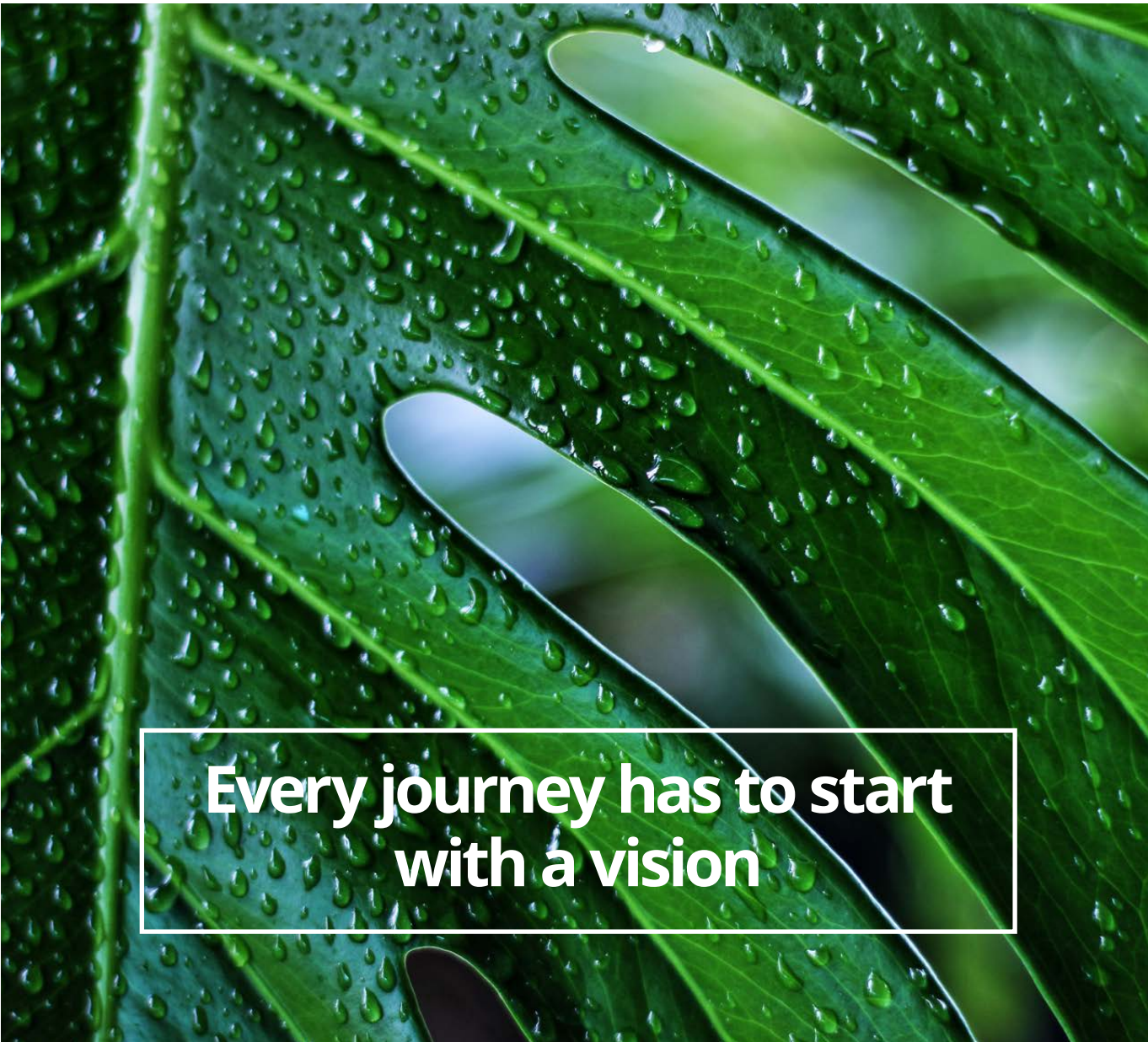
HOW SMES MOVE GREEN

Big or Small – All Can Make the Transition

By Timothy Foote

Director Transportation and Network APAC at Asendia
and Founder of Susymbio





Every journey has to start with a vision

Small – Medium Enterprises (SMEs) involved with lowering emissions is something close to my own experience because I've worked with some outstanding companies that are not large Multi-National Companies (MNCs) but are small local champions. Their efforts can often surpass those of MNCs. Being small can have real organisational and decision-making advantages compared to large organisations. This month I am providing advice on how small to medium companies can get moving green!

How to Get Started?

Step 1: every journey has to start with a vision. For the logistics industry, that vision is to have zero emissions in the future. The exact date when zero is achieved you can assume will change during the journey, but having that vision accepted and communicated is key. In an SME, this step can be done very quickly and informally. It could be during larger meetings, regular managerial conversations, or during a lunch.

Step 2 is to get the key leaders that you want to drive this transition trained where needed. Main focus areas for training should be on understanding the sources of emissions, how to measure them, and what initiatives can be used to reduce emissions. In our industry, there will always be the office-generated emissions, the warehouse emissions, and the travel emissions – but more intense will be the transportation/ logistics emissions which we purchase or manage ourselves.



Step 3 then is to establish processes so that the emissions you are generating can be monitored. There are many free sources of information to allow for SMEs to establish this using a spreadsheet. Free emission-calculating spreadsheets, for instance, can be downloaded. I've used the United Nations' Climate Neutral Now website to find emissions calculators for my work.

Step 4 then is starting a plan to get your company "into the green". Using the calculations you have made for a couple of consecutive months in Step 3, you will be able to list in order of emissions quantity the top emission sources. When planning your emission reduction initiatives, try to limit the number to only 4 or 5 at first (these will likely represent 80% or more of your company's emissions). This can always be expanded to include other areas in the future, but tackle the big stuff with some ideas. In my experience I have always done this step by working with a team. The best ideas on how to reduce emissions often come from having more voices in the room.

With the plan now having been established, Step 5 is to implement, monitor and periodically renew your initiatives. Expect this to take time and start to incorporate reporting on emissions as no different than reporting on financial accounts. You cannot see reducing emissions as a regular project because the time that is needed to reduce emissions to zero is going to be years away for our industry.



How Can Your Government Help?

A few governments in APAC understand the need for SMEs to be involved with the energy transition. In Singapore, for instance, a great resource for getting started is to download the Sustainability Playbook for Enterprises. When you download the playbook, you will see many links which tell you about government-funded support you can tap into. For Australian small businesses, have a look at the Energy Efficiency Grants for Small and Medium Sized Enterprises. Like some other countries in Asia, the focus for Australia is to assist SMEs via funding to upgrade to new equipment that emits less or zero emissions.

These government initiatives aside, universities and even industry groups may be available to provide some training and advice on how to

get your SME started with its green journey. It's been my experience that when I ask my friends in other companies in our industry what their businesses are involved with to bring down emissions, they are often very eager to share everything they know about their programmes.

If you are an SME and you are starting your transition journey, let me know if my advice is helpful. I would really like to know as well what solutions your firm has come up with to reduce emissions. We are all learning and seeking better solutions to reduce emissions. I therefore look forward to any new insights that you can share.



Timothy Foote

Director Transportation and Network APAC at Asendia and Founder of Susymbio

Tim Foote has worked in management positions at multiple MNCs for more than 25 years, gaining expansive expertise in logistical operations. He continues to craft delivery solutions for many e-commerce clients at Asendia. When it comes to sustainability, Tim first gained experience as the Head of Go Green at DHL eCommerce APAC. He later grew his knowledge as a trusted sustainability expert working for his own consulting business, Susymbio. Please reach out to him for any sustainability stories you feel are noteworthy. Let's green our industry together!

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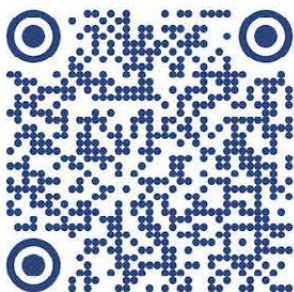
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