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ASIA MAGAZINE

**Northern Tech Centre
Targets RM8.5bil
Investments to Boost
Semiconductor Hub**

**Singapore's Agnes AI
Enters Global Top 10 AI
Lab Rankings, Supports
National Push to Upskill
40,000 Tech Professionals**

**PM Calls for More
Companies to Leverage
5G, Strengthen the
Digital Economy**

IN THE HOT SEAT
An Interview with

Rahul Nambiar, CEO and Co-founder of Botsync
From Digital AI to Physical AI: Turning Investment into
Real-World Automation on the Warehouse Floor

PP19554/06/2020 (035190)

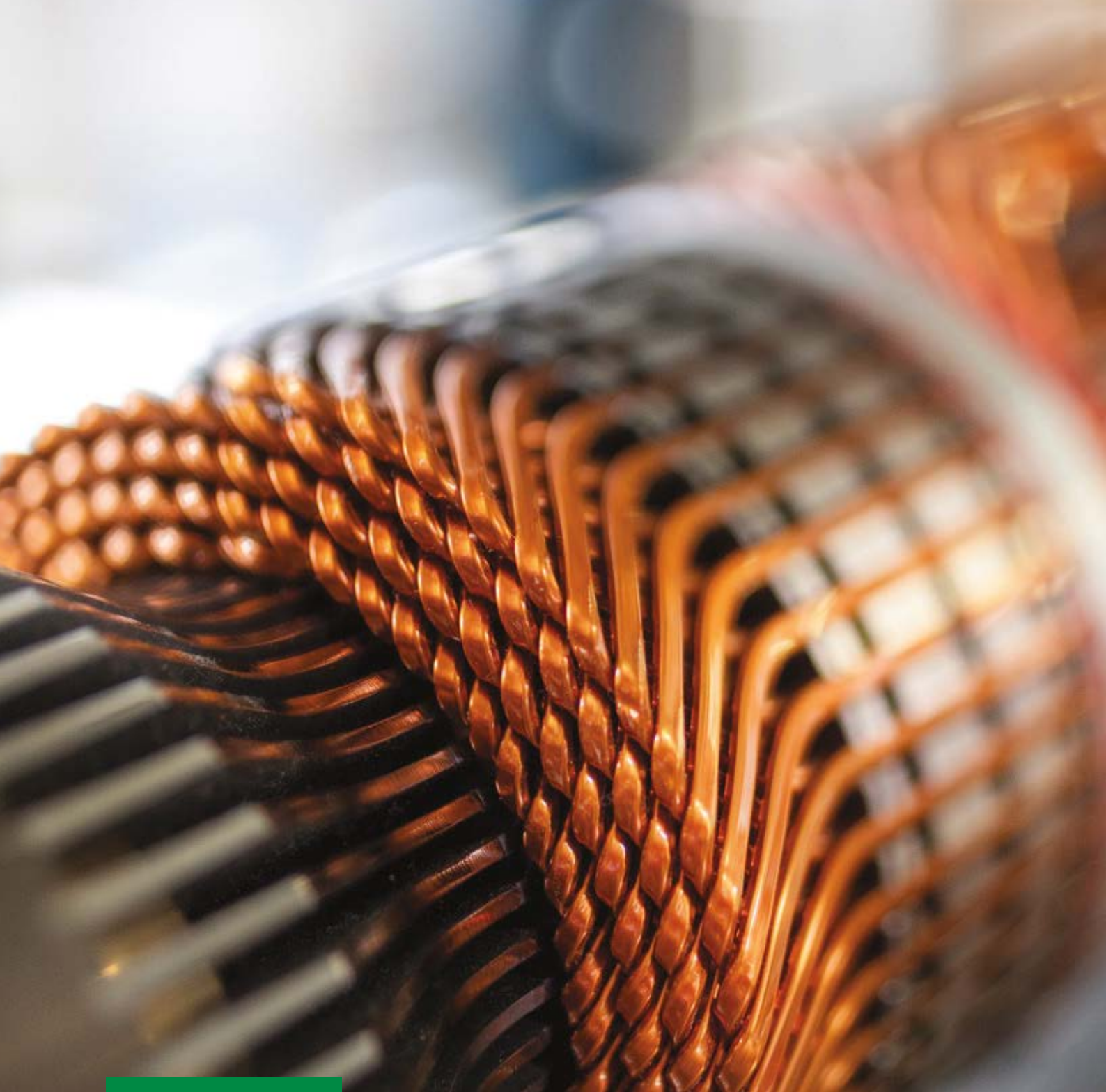
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Find out more about
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PUBLISHER'S MESSAGE

Malaysia's manufacturing landscape continues to evolve as the country accelerates its smart manufacturing journey, with 161 recognised smart factories targeted by the end of 2026. This milestone reflects a wider shift in Industry 4.0, where technologies such as automation, artificial intelligence (AI), robotics and the Industrial Internet of Things (IIoT) are moving beyond discussion and becoming part of real manufacturing operations.

For manufacturers, particularly SMEs, the journey towards smart manufacturing does not have to happen overnight. It can begin with practical steps, from automating repetitive processes and connecting machines to using production data more effectively. The real value of Industry 4.0 lies not simply in adopting the latest technology, but in finding the right solutions to improve productivity, efficiency and competitiveness.

In this issue of Automate Asia Magazine, we continue this conversation by exploring the technologies and developments driving the next phase of industrial transformation. From automation and intelligent manufacturing solutions to the growing role of AI in industry, the stories featured in this edition offer a closer look at how technology is reshaping the factory floor and creating new possibilities for manufacturers across the region.

As we move towards the final months of 2026, Malaysia's smart factory ambitions remind us that industrial transformation is already happening. The challenge now is to turn that momentum into meaningful progress. We hope this issue provides fresh perspectives, practical insights and inspiration as you navigate the journey towards a smarter, more connected and future-ready manufacturing industry.

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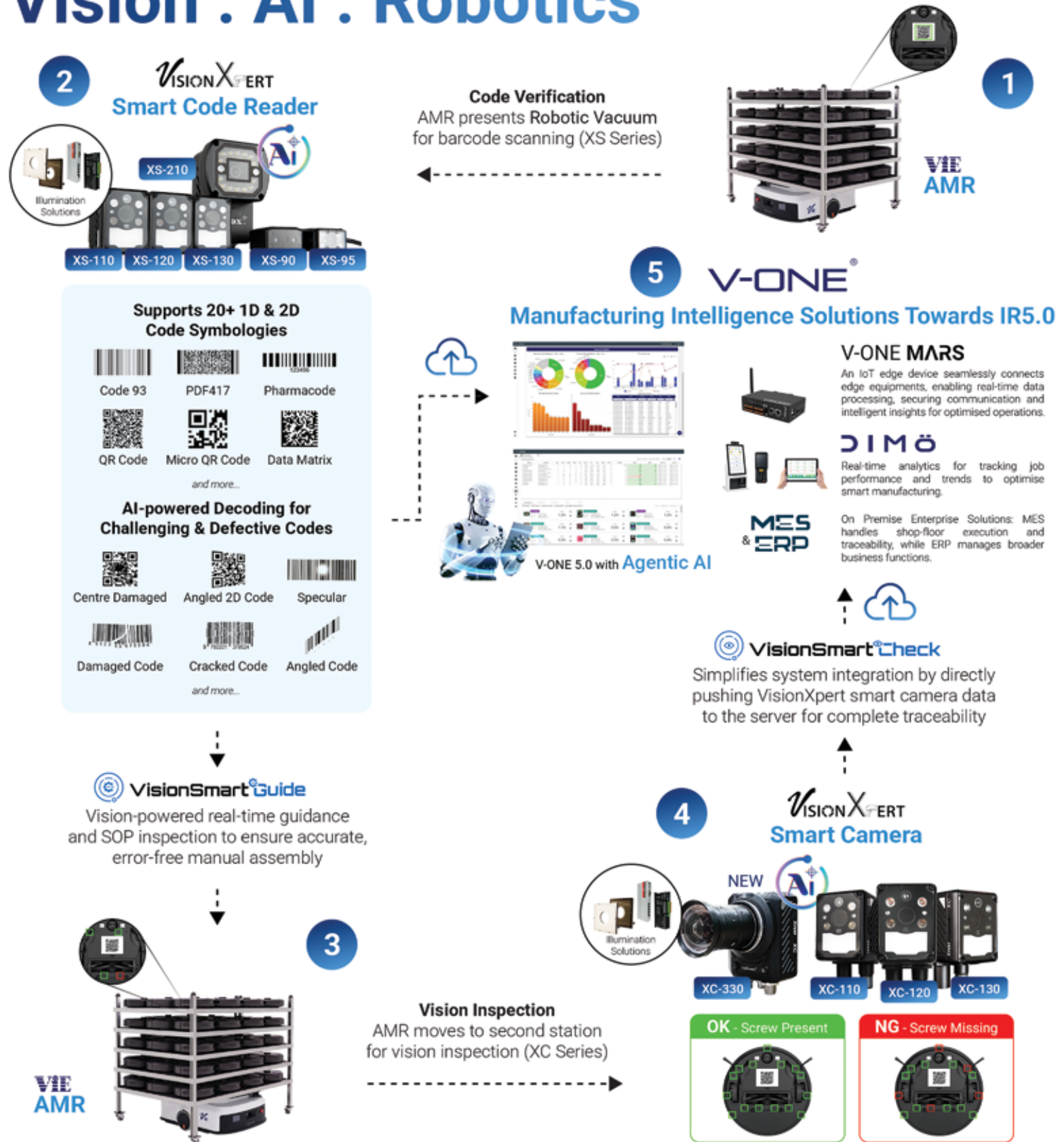
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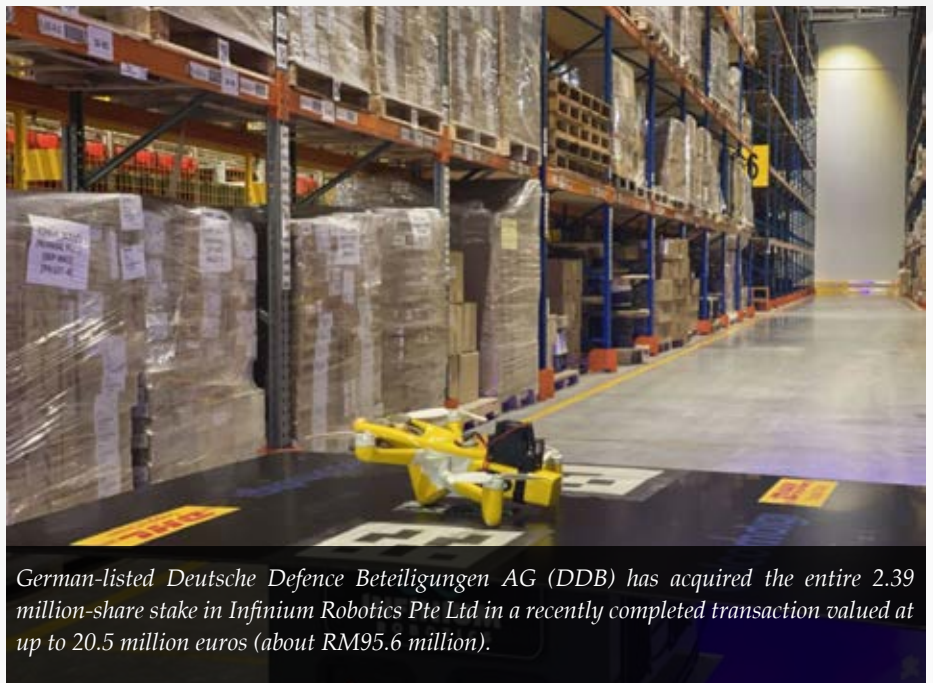
German Firm Buys Singapore's Infinium Robotics for RM95.6mil

German-listed Deutsche Defence Beteiligungen AG (DDB) has acquired the entire 2.39 million-share stake in Infinium Robotics Pte Ltd in a recently completed transaction valued at up to 20.5 million euros (about RM95.6 million).

Infinium is a Singapore-founded logistics technology company with deployments supporting Malaysian warehouse and logistics operations.

In a statement, Infinium said the transaction was completed through the issuance of up to 20.54 million new DDB AG shares at 1.00 euro per share.

Infinium chief executive officer Jon Woon said the transaction marked a significant step in the company's international expansion and would support further growth in Malaysia and other markets through greater European exposure and access to a listed platform.



German-listed Deutsche Defence Beteiligungen AG (DDB) has acquired the entire 2.39 million-share stake in Infinium Robotics Pte Ltd in a recently completed transaction valued at up to 20.5 million euros (about RM95.6 million).

The statement said that Infinium specialises in artificial intelligence (AI)-driven autonomous drone systems designed to automate warehouse inventory processes, a critical but traditionally manual function in supply chains.

In Malaysia, Infinium's solutions have been deployed in warehouses operated by telecommunications companies and global logistics providers, with deployments across key sites including Shah Alam, Subang Jaya and Penang.



From left: Datuk Mohtar Musri, Chairman of Liftech; Bernard Ng, Managing Director; Eng Peng Hong, Executive Director; Ng Say Lim, Executive Director; Chan Kim Wean, Independent Director; Tan Bee Chan, Independent Director; Datin Goh Hooi Hooi, Independent Director; Treston Ng, Substantial Shareholder & Head of Business Development; Datuk Bill Tan, Managing Director, M & A Equity Holdings; and Gary Ting, Head of Corporate Finance, M & A Securities.

Liftech Pursues Growth in High-Value Manufacturing

ACE Market debutant Liftech Group Bhd is eyeing growth opportunities in Malaysia's expanding semiconductor, aerospace, and data centre sectors as the country continues to attract investment in advanced manufacturing and digital infrastructure.

Shares of the crane manufacturer debuted at 27.5 sen yesterday, below its initial public offering (IPO) price of 29 sen per share.

At 5pm, Liftech slipped five sen to 24 sen.

In a statement, Liftech managing director Bernard Ng said Malaysia's shift towards high-value manufacturing is creating opportunities for engineering companies with specialised capabilities, as industries increasingly require sophisticated, customised, and reliable lifting and material-handling solutions.

"We believe Liftech is well-positioned to support this transformation through our engineering expertise, proven track record and more than three decades of industry experience.

"We do more than supply lifting equipment.

"We work closely with our customers to engineer customised lifting and material handling solutions that improve productivity, enhance workplace safety and optimise operational efficiency," he said.

Ng said proceeds from the company's IPO would support its next phase of expansion, including strengthening its presence in Penang, Malaysia's largest semiconductor manufacturing hub, and establishing a new operational facility in Kota Kinabalu to better serve customers in Sabah and Sarawak.

"Together with investments in new machinery and equipment, these initiatives will strengthen our engineering capabilities and position Liftech to capture opportunities arising from Malaysia's continued industrial transformation."

As of May 10, 2026, the company had an unbilled order book of about RM41.6mil, providing near-term earnings visibility.

According to the statement, Liftech raised RM23mil through the public issue of 79.2 million new shares at an issue price of 29 sen each as part of its listing exercise, which also included an offer for sale of 15.8 million existing shares to selected investors by way of private placement.

Of the proceeds, RM13.8mil, or 59.8%, will be used to repay bank borrowings incurred to acquire strategic operational facilities in Bukit Minyak, Penang, and Kota Kinabalu, Sabah.

Another RM1.7mil (7.5%) will be used to purchase new machinery and equipment for its Taiping factory, RM1mil (4.4%) for factory and office upgrades, RM2mil (8.7%) for working capital, and the remaining RM4.5mil (19.6%) for listing expenses.

M&A Securities Sdn Bhd is the adviser, sponsor, underwriter and placement agent for the IPO, while Wyncorp Advisory Sdn Bhd is the corporate finance adviser.

452,726 Jobs Expected From 5,350 Manufacturing Projects in Malaysia



Investment, Trade and Industry Minister Datuk Seri Johari Abdul Ghani. – Bernama

Malaysia approved 5,350 manufacturing projects worth RM707.2bil between 2021 and March this year, with foreign investments (FIs) accounting for more than 80% of the total approved investments, says Datuk Seri Johari Abdul Ghani.

The Investment, Trade and Industry Minister said these projects are expected to create 452,726 new jobs.

“Of the total approved investments, foreign investment (FI) accounted for RM579.6bil, or 82%, while domestic investment (DI) contributed RM127.6bil, or 18%,” he said in a parliamentary written reply in response to a question from Datuk Seri Hishammuddin Hussein (BN-Sembrong).

Hishammuddin had asked the Investment, Trade and Industry Ministry to state the actual percentage of approved foreign direct investment (FDI) that has been realised on the ground, and the mechanisms in place to ensure that the economic spillover from such investments directly benefits the local SME vendor supply chain.

Johari said in general, approved projects take between 18 and 24 months to be realised, depending on factors such as project complexity, scale and prevailing economic conditions.

“Under the definitions used by my Ministry and The Malaysian Investment Development Authority (Mida), a project is considered realised or implemented if it has reached one of the following stages: commencement of operations, installation of machinery, or the construction or leasing of factories, buildings or warehouses.

“As of Dec 31, 2025, a total of 4,114 projects, or 77% of approved manufacturing projects, had been implemented, involving investments worth RM506bil and creating 344,531 new jobs.

“Of this amount, foreign investment contributed RM414.4bil, or 81.9%, while domestic investment accounted for RM91.5bil, or 18.1%,” he explained.

Addressing concerns over whether foreign investments benefit local businesses, he said the government has introduced several measures to strengthen local supply chains and increase participation by local companies.

He said the government has introduced several measures to strengthen local supply chains and increase participation by local companies.

These include supply chain seminars to connect local micro, small and medium enterprises (SMEs) with multinational corporations, mandatory vendor development and collaboration programmes for selected high-value investments, and the introduction of the New Incentive Framework (NIF) on March 1 this year.

He added that the government remains committed to ensuring that approved foreign investments are realised and contribute meaningfully to the country’s economic growth and industrial development.





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Northern Tech Centre Targets RM8.5bil Investments to Boost Semiconductor Hub



The NCER Technology and Innovation Centre (NTIC) is targeting RM8.5 billion in new investments by 2030 to strengthen the northern region's position as a high-value semiconductor hub.

Economy Minister Akmal Nasrullah Mohd Nasir said the target would be driven by the Advanced Packaging Institute and Research Centre (APIRC), which is leading efforts to develop advanced semiconductor packaging capabilities.

He said APIRC marked a shift for Malaysia beyond traditional semiconductor assembly and testing towards higher-value, innovation-led activities.

“Through APIRC, we are targeting RM8.5 billion in new investments and the development of 12 local companies within the advanced packaging ecosystem by 2030.

“This is not merely about attracting investments, but ensuring greater value creation, expertise and economic opportunities remain in Malaysia,” he said after officiating the NTIC in Bayan Lepas today.

Akmal said Malaysia must build on its semiconductor strengths by expanding capabilities in IC and system design, advanced packaging, automation, equipment development, R&D, prototyping and commercialisation.



Economy Minister Akmal Nasrullah Mohd Nasir said the target would be driven by the Advanced Packaging Institute and Research Centre (APIRC), which is leading efforts to develop advanced semiconductor packaging capabilities. - BERNAMA pic



He said investment quality must translate into quality jobs, higher wages and stronger local participation in the value chain, with success measured by talent development and industry upgrading.

He added that APIRC's 2030 targets were expected to generate wider spillover effects across Penang, Kedah, Perlis and Perak, including high-skilled jobs, increased R&D activity, greater technology commercialisation and stronger SME participation in global supply chains.

APIRC is being implemented with support from Silicon Connect, which serves as NTIC's Centre of Excellence provider, offering advanced packaging solutions covering design, prototyping and chip sample production.

Partners include CEDEC, Tessolve, the Global Electronics Association, ECTrons and Steerix, with NCER acting as strategic partner and facilitator.

"This collaborative approach reflects the government's aspiration to strengthen growth through public-private partnerships, academia, research institutions and local talent," Akmal said.

Meanwhile, Northern Corridor Implementation Authority (NCIA) chief executive officer Datuk Mohamad Haris Kader Sultan said NTIC served as a platform for Industry 4.0 technologies, robotics, IC design, system testing, engineering solutions and technology collaboration.

He said the initiative focused on three key sectors – high-value manufacturing, advanced services and modern agriculture.

"NTIC serves as a platform for strategic collaboration between government, industry, academia and local communities to strengthen the northern region's high-technology ecosystem.

"APIRC is one of the key outcomes of this public-private partnership," he added.

Since 2023, NTIC has facilitated cumulative investments of RM70 billion, appointed 25 Centre of Excellence providers and supported the upgrading of 68 local companies in the northern region.

The centre has also generated 16 intellectual properties, developed 1,452 skilled talents through industry-academia collaboration, and created 5,074 jobs.

NCIA said 58 per cent of programme participants recorded salary increases or promotions, underscoring NTIC's role as a catalyst for regional economic and technological growth.

Global Tech Giants Agibot and Huawei Enter Johor

Johor has officially positioned itself as a premier regional force in high-tech investment, securing partnerships with global technology titans, including Huawei and Agibot, to anchor the landmark RM80 billion Johor Tech Smart City project.

This high-impact project, valued at RM80 billion and spanning 930.78 hectares, serves as a strategic move by the state government to accelerate its digital agenda and food security in line with the Maju Johor 2030 aspirations.

Johor Menteri Besar Datuk Onn Hafiz Ghazi stated that the project is more than a physical development; it is a catalyst for Johor's economic transformation and is projected to create over 10,000 quality job opportunities.

"This initiative focuses on sectors including technology, artificial intelligence (AI), smart agriculture, and talent research and development (R&D). We want to ensure that economic prosperity directly benefits the people, particularly through local talent development," he said in his opening remarks at the AgTech City programme in Bandar Genting here, today.



To streamline investment, the state government is committed to facilitating business through one-stop centres like the Invest Malaysia Facilitation Centre Johor, aimed at reducing bureaucracy.

Johor Tech Smart City will be developed as an integrated ecosystem combining an AgTech Campus and a Knowledge AI Campus. To realise this vision, Genting Property and ACGT Sdn Bhd are collaborating with a network of global technical leaders.

Huawei's world-renowned smart campuses in Shanghai and Dongguan serve as the foundational inspiration for the Knowledge AI Campus master plan, supported by urban planning and smart systems design experts B+H and Surbana Jurong.

The AgTech Campus ecosystem is reinforced by industry pioneers, including China Shouguang Vegetable Industry Group for seed R&D and tropical crop development, DAYU Irrigation for advanced precision water and nutrient

management, XAG for market-leading autonomous agri-robotics, and AIRSAT, which delivers satellite intelligence and remote crop data analytics.

Onn Hafiz emphasised that the development would ensure that local Small and Medium Enterprises (SMEs) are integrated into the supply chain, preventing them from being left behind in this new economic landscape.

"We must ensure that the SMEs in Johor must also prosper as companies from China enter. While we welcome the Chinese companies entering Johor, our SMEs should not be left behind," he said.

This project is part of Johor's strong economic growth momentum, with the state recording RM110 billion in approved investments over the past two years since January 2024, setting a national record.

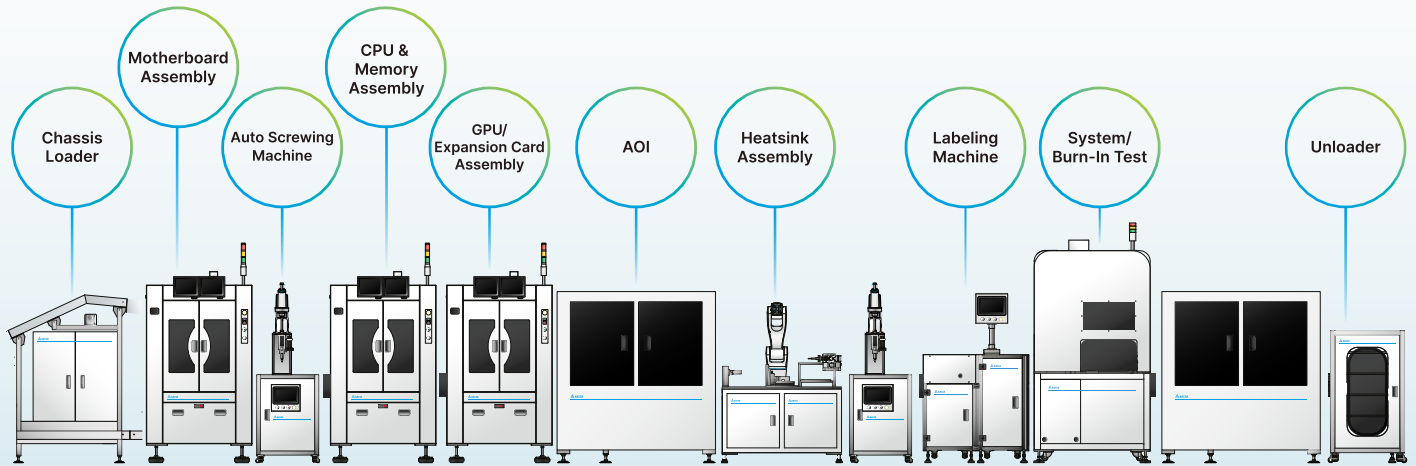
These efforts are expected to establish Johor as a top destination for global investors in innovation, future technology, and food security in Southeast Asia.

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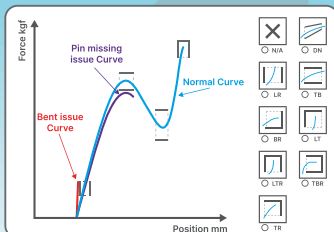
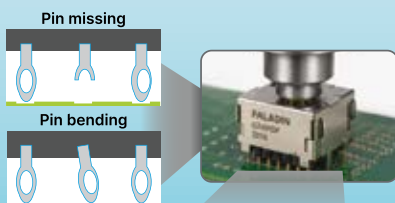
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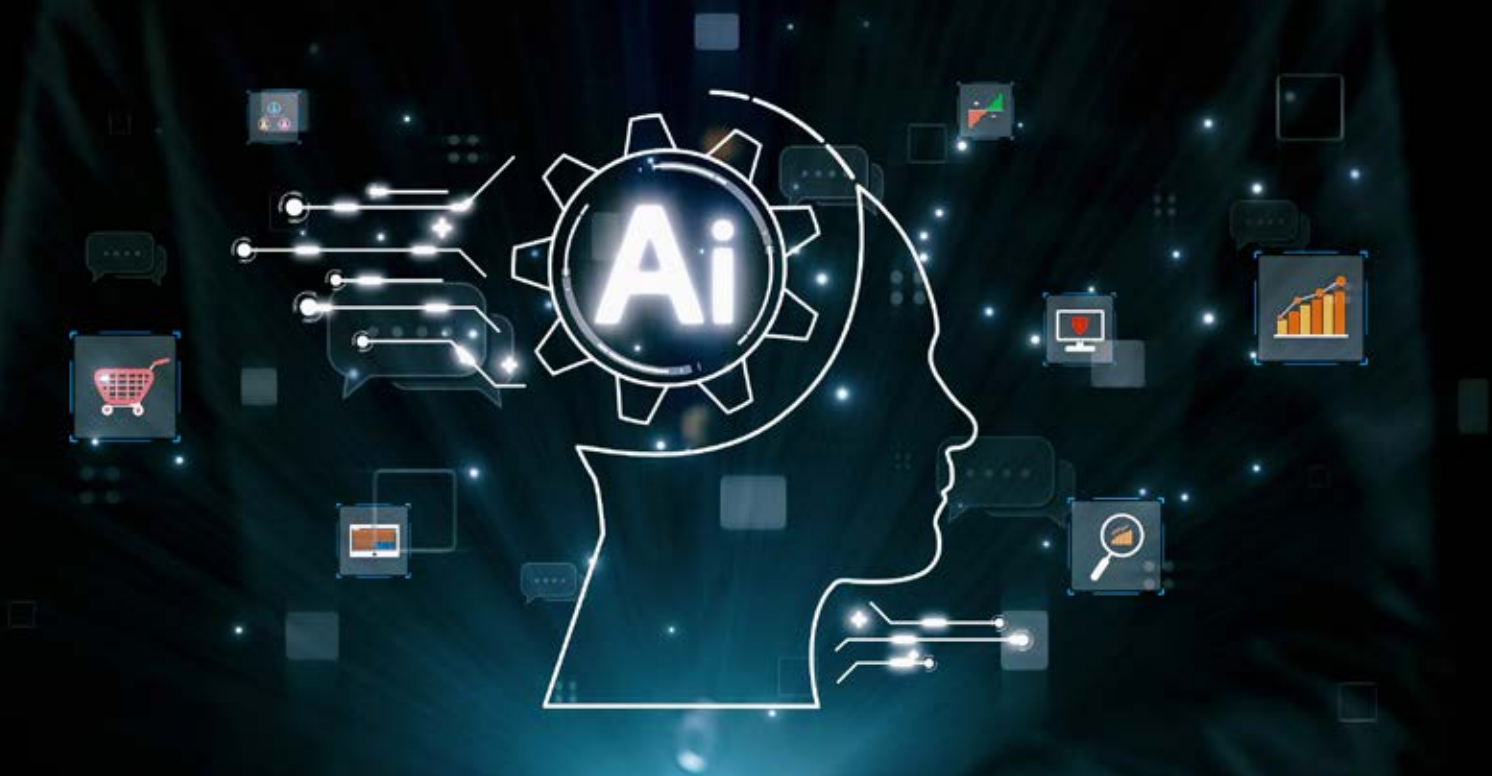
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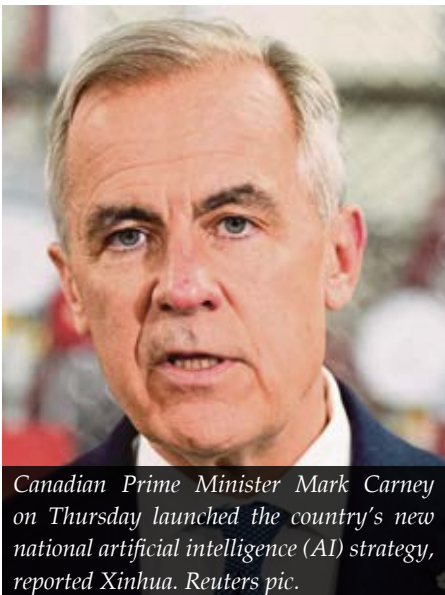
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Canada Unveils National AI Strategy

Canadian Prime Minister Mark Carney on Thursday launched the country's new national artificial intelligence (AI) strategy, reported Xinhua.



Canadian Prime Minister Mark Carney on Thursday launched the country's new national artificial intelligence (AI) strategy, reported Xinhua. Reuters pic.

The strategy, named "AI for All," targets a boost to Canada's economy by nearly C\$200 billion (about US\$144 billion) to create 250,000 new AI-related jobs over the next five years, said a news release on the prime minister's official website.

It also aims to increase AI adoption from just over 12 per cent to 60 per cent by 2034, said the release, adding that a national AI literacy initiative will also be established to offer entry-level AI training for all Canadians.

Small and medium-sized businesses will get help adopting AI to support workers, raise productivity, and drive breakthroughs in priority sectors, such as health, energy, transportation, agriculture, manufacturing, robotics, and government services, it said.

The strategy will build a world-leading public AI supercomputer and invest in sovereign compute and cloud infrastructure, with a focus on high-performance computing that is sustainable and aligned with Canada's clean energy expansion, robust environmental standards, and tangible benefits for local communities, said the release.

Canada currently has three national AI institutes: the Vector Institute in Toronto, Ontario; Mila - Quebec Artificial Intelligence Institute in Montreal, Quebec; and the Alberta Machine Intelligence Institute in Edmonton, Alberta.

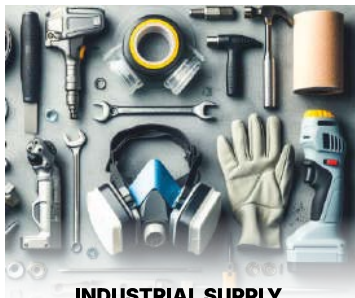


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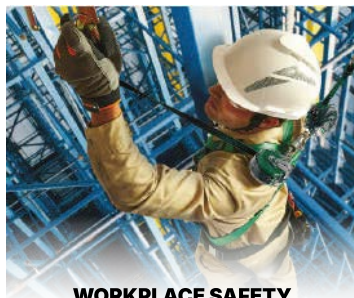
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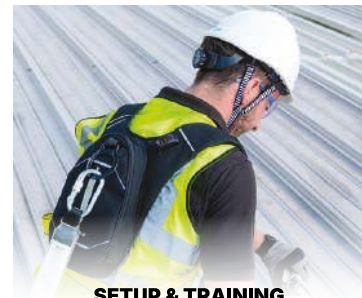
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Nvidia Unveils AI Infrastructure Deals in South Korea



US chip titan Nvidia announced on Monday a raft of artificial intelligence deals in South Korea. Reuters pic

US chip titan Nvidia announced on Monday a raft of artificial intelligence deals in South Korea, where booming business for semiconductor companies is fuelling debate over how much of the profits go to workers.

Nvidia, the world's most valuable company, unveiled with SK Telecom a "gigawatt-scale" AI data centre construction project, with the first facility set to come online in 2027.

It will support "AI services for enterprises and industries across Korea, with the vision to expand to greater Asia regions", the companies said.

No figure was given for how much the pair will invest in the data centres, or for other new tie-ups that Nvidia touted with the likes of Naver, LG Group, Hyundai and Doosan Group, including on AI robotics.

The deals were unveiled after Nvidia CEO Jensen Huang spent the weekend eating barbecue and fried chicken with the country's tech leaders in Seoul and appearing on a popular TV show.

Nvidia also said it would work with chipmaker SK hynix to develop advanced memory components that are needed to run AI systems but are currently in short supply.

Their "multi-year technology partnership" will "sustain the global buildout of AI factories" by supporting supply for advanced memory chips, they said.

Lian Jye Su, a chief analyst at Omdia, told AFP that Nvidia's new deals were "about strengthening existing relationships and further validating South Korea's role in the global AI supply chain."

'Please Make More'

Governments and companies are pouring hundreds of billions of dollars into AI infrastructure, creating a global memory chip shortage.

That has sent profits skyrocketing for manufacturers such as SK hynix and rival Samsung Electronics, whose union recently agreed a deal with management on bonuses.

The chair of SK Group, parent of SK Telecom and SK hynix, vowed last week to double production capacity of the silicon wafers used to make memory chips.

But Chey Tae-won also reiterated his prediction that shortages could persist until 2030.

Huang signed a memory chip display at the SK hynix booth at last week's Computex trade show in Taipei, writing: "Please make more."

Asked in Taipei about the labour dispute at Samsung, Huang said companies should pay workers "as much as possible."

Under the union deal, struck to avert a strike, around 60 per cent of Samsung's domestic workforce is eligible to receive a bonus of roughly US\$330,000 this year, based on a market estimate of operating profit.

South Korean President Lee Jae Myung weighed in on Monday on the debate about how to share the gains from AI-driven growth.



The topic is "very difficult" but "an unavoidable reality" in the AI era, Lee told reporters, adding that it will eventually require international discussion.

"If the operating profit margin exceeds 75 per cent, does it belong solely to the company?" Lee said.

He asked whether workers, investors, the state that has invested heavily in research and development, and taxpayers who supported it also deserve a share.

However, Lee cautioned that any attempt to redistribute excess corporate profits could discourage investment.

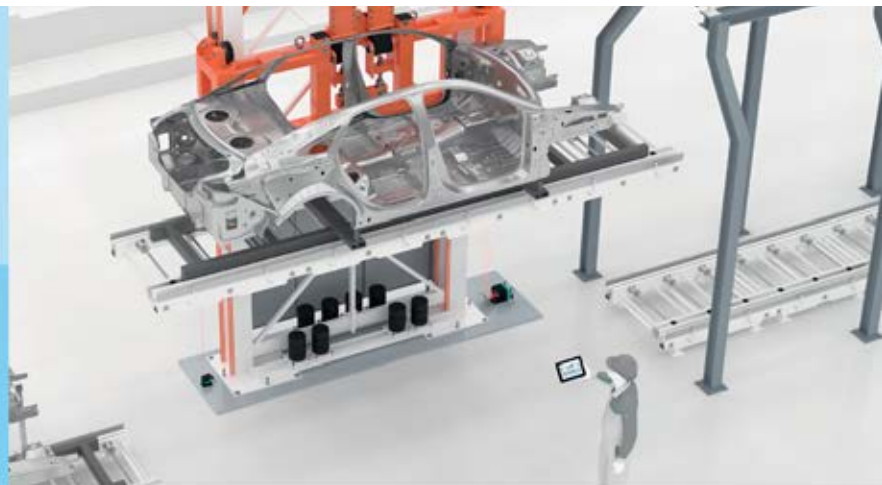
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Shops Turning to Automation to Escape Labour Woes



Future brew: A customer receiving coffee prepared by a robot arm at an unmanned cafe in Seoul. — Reuters

Unstaffed coffee shops, ramen eateries and flower outlets are spreading across South Korea as owners turn to robots and self-service to overcome rising labour costs in a business model that relies on the widespread honesty of users.

Such stores, usually open 24 hours, were estimated to number 9,000 nationwide by the end of 2024, the National Fire Agency said, while payments provider Samsung Card said their number probably grew four times by 2025 from 2020.

“The population of baristas in their early twenties is drastically declining,” said Kim Dongjin, chief executive of Lounge X, where a robot arm named “Baris” serves paper cups of Americanos and matcha lattes to fill orders from on-site kiosks.

His company runs eight such 24-hour coffee shops, entirely unstaffed, across South Korea, most of them in Seoul, the capital, although human employees prepare coffee drinks in four more.

Stores with no staff members are not uncommon globally, with cashier-free

grocers in countries such as Britain and the United States, but the concept has spread wider in South Korea to encompass even pet supply stores and clothing boutiques.

Owners of such stores cite difficulties in finding suitable staff and rising wage costs as reasons for adopting the model, particularly as rates of petty crime are low in South Korea, where customers are generally rule-abiding.

South Korea has a rapidly ageing population, with one of the world’s lowest birth rates leading to a labour crunch. The government expects the population of 51.8 million to shrink by almost a third to 36.2 million by 2072.

Hiring expert baristas has become increasingly harder, said Kim, a 20-year-veteran of the coffee industry who joined Lounge X’s parent, South Korean XYZ Robotics, seven years ago to launch the unstaffed coffee shops in 2024.

They first tested the waters with a hybrid model employing one or two baristas in each store. Now each requires just one

hour-long morning visit by a human worker to top up inventory such as coffee beans and bakery goods, and run clean-ups.

While sales at a human-staffed coffee shop still tend to be higher, Kim said, the savings on labour boost the profitability of each unstaffed store to more than 40%, from roughly 10% to 15% at the conventional equivalent.

Hyun Sun-joo, who took over an unstaffed ramen eatery last year, said the self-service format, in which customers pick their choice of instant ramen off wall shelves to add hot water and preferred toppings, lets her juggle her children’s schedules and housework, freeing her up from managing staff.

Student Kim Hee-yeon said she ate there at least once a week, as the operating hours suited her irregular eating habits.

“I like to eat quietly while looking at my phone, so I do feel psychologically more comfortable when there isn’t anyone around,” she said.

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Proteus Transportation robots are demonstrated during the Delivering the Future EMEA 2026 event at Amazon's LCY3 fulfilment centre in Dartford, Britain, June 4, 2026. REUTERS/Toby Shephard.

Amazon Unveils New AI Warehouse Robot In \$12 Billion Europe Push

Amazon on Thursday unveiled an upgraded AI-powered mobile robot for its warehouses that can respond to conversational prompts, as part of a €10 billion (\$11.6 billion) investment in its European fulfilment network.

The Seattle-based e-commerce giant showcased the next-generation Proteus robot at its “Delivering the Future” event at its Dartford fulfilment centre east of London, as it works to speed up deliveries.

The current Proteus, deployed at 25 U.S. sites, operates only in dock areas, moving carts weighing up to nearly 400 kg (882 lbs).



Boxes of customer orders move along a conveyor belt at Amazon's LCY3 fulfilment centre in Dartford, Britain, June 4, 2026. REUTERS/Toby Shephard

New Model Figures Out Tasks, Routes

The new version, due in Europe in the first half of 2027, can operate across warehouse floors and marks a shift in how employees interact with robots.

“You tell it what needs to be done. It figures out the priority, the route, the timing,” said Scott Dresser, vice president of Amazon Robotics.

Amazon also showcased STARK, a robotic tote-handling system first piloted in Barcelona and set to roll out to 15 European sites by 2027, and Vulcan, its first robot with a sense of touch.

Grocery Expansion

Amazon said it will launch more than 25 sub-same-day delivery sites across Europe this year, including in Britain and Germany. Amazon Now, its ultra-fast essentials delivery service, will expand to Manchester and Birmingham in Britain.

It said same-day delivery for fresh groceries is now available in more than 2,300 U.S. cities and parts of Tokyo, with further expansion planned in Japan, Britain and other countries in the coming months.

Amazon also said Alexa+, its next-generation AI assistant, will launch in 10 additional countries in 2027.

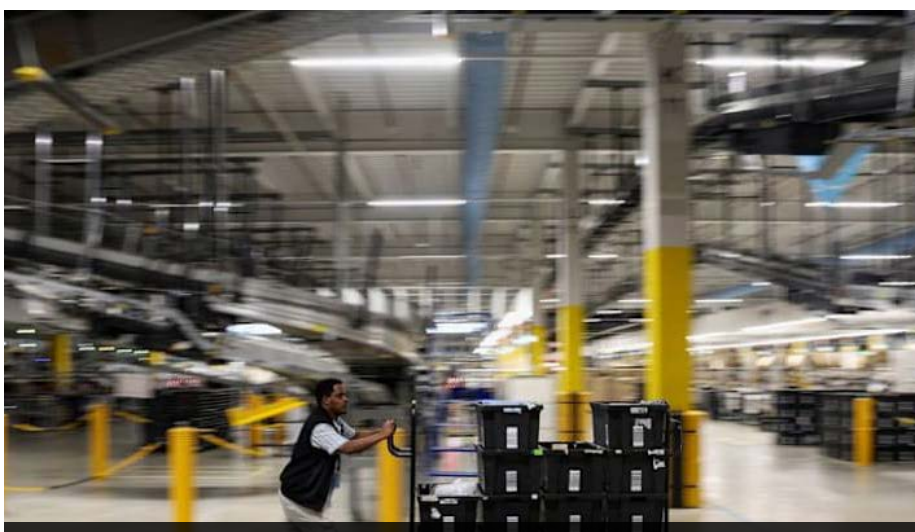
In February, Amazon forecast a more than 50 per cent jump in capital expenditure to \$200 billion this year, joining its peers in a spending spree to ramp up AI infrastructure.



Boxes of customer orders move along a conveyor belt at Amazon's LCY3 fulfilment centre in Dartford, Britain, June 4, 2026. REUTERS/Toby Shephard



A worker at a stowing station at Amazon's LCY3 fulfilment centre in Dartford, Britain, June 4, 2026. REUTERS/Toby Shephard



Boxes of customer orders are pushed along on a trolley at Amazon's LCY3 fulfilment centre in Dartford, Britain, June 4, 2026. REUTERS/Toby Shephard

French Startup Bets on Non-Humanoid Design in Crowded AI Robot Race

Genesis AI, the French robotics startup backed by former Google CEO Eric Schmidt, unveiled its first general-purpose robot on Tuesday, as AI capabilities expand beyond chatbots and into physical machines.



Eno, a general-purpose AI robot made by French robotics startup Genesis AI, drops a sample vial into a centrifuge at a laboratory in Alameda, California, U.S, June 8, 2026. Genesis AI/Handout Via REUTERS

The robot, named Eno, breaks from the humanoid design usually favoured by leading manufacturers, featuring a wheeled base rather than legs, a foldable tower and hands that the company says match the form of a human hand.

Driven by advances in AI, the global robotics market is expanding rapidly, sparking debate over its impact on employment, though technical challenges, mostly about processing power and battery life, remain.



Eno, a general-purpose AI robot made by French robotics startup Genesis AI, reaches for a box on a conveyor belt at a warehouse in Sunnyvale, California, U.S, June 9, 2026. Genesis AI/Handout Via REUTERS



Genesis AI's dexterous robotic hands manipulate a Rubik's Cube using continuous in-air manipulation requiring coordinated, high-speed reasoning and precise wrist control, at the company's facility in San Carlos, California, U.S, June 9, 2026. Genesis AI/Handout Via REUTERS



Genesis AI's dexterous robotic hands pour a smoothie with coordinated two-hand control at the company's facility in San Carlos, California, U.S, April 21, 2026. Genesis AI/Handout Via REUTERS

A Reuters/Ipsos poll this month showed 53 per cent of Americans were concerned that AI would put them or someone in their household out of work.

Founded in early 2025, Genesis AI has raised \$105 million (€90.6 million), one of France's largest and matching the record seed round of Mistral AI - Europe's leading AI company. Genesis AI's valuation was not immediately available.

Eno runs on Genesis' own AI model, and is not built to look like humans, but to extend human capabilities, according to the company.

Genesis AI plans to begin production and targeted customer deployments by the end of 2026, starting with logistics and manufacturing customers, followed by hotels, hospitals, and consumers.

In a statement, Schmidt said the robot's breakthrough will not replace human expertise, but rather "amplify it" to unlock what he called "one of the largest economic opportunities of the AI era."

Genesis AI has built dozens of units so far and plans to scale up production in the second half of 2026, Vivian Sun, Vice President of Commercial and Strategy at Genesis AI, told Reuters.

Sun said the wheeled base was chosen because most industrial customers operate on flat floors, adding that legs would only make sense for use cases like climbing stairs.

"We are mimicking humans in capabilities, not in form. Humans can go up and down, and so does the robot, but through this foldable design."

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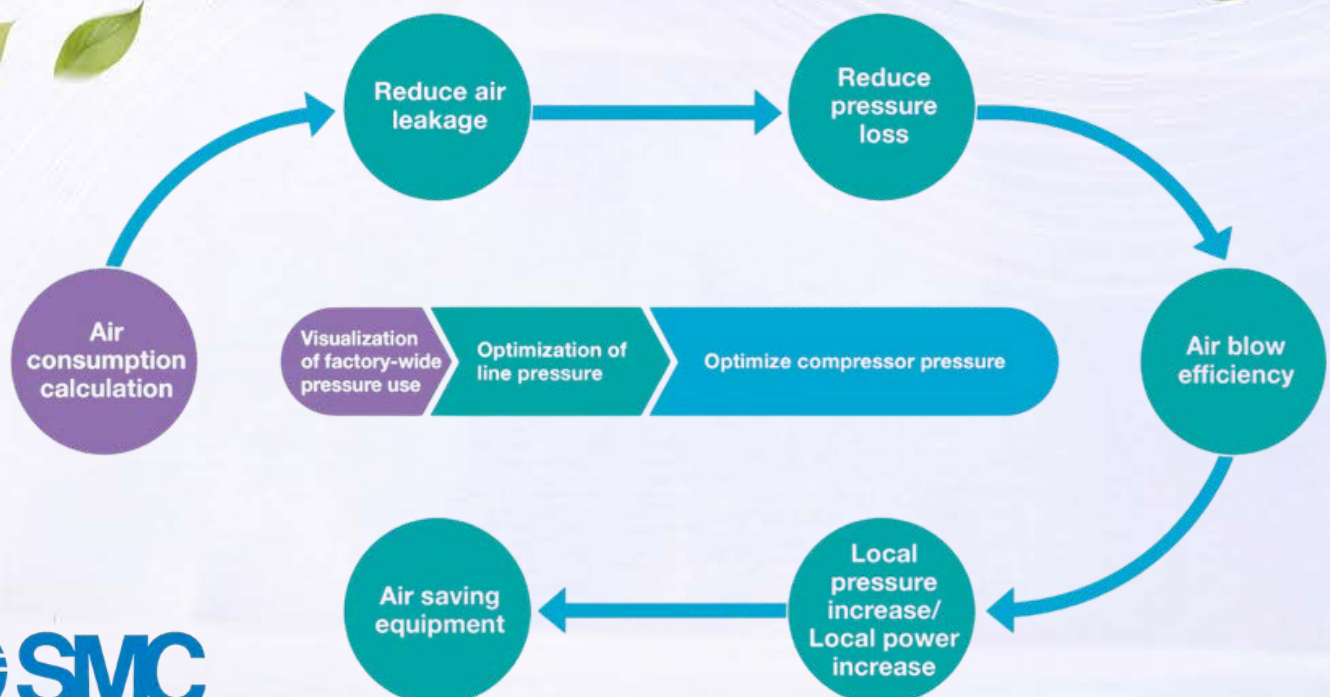


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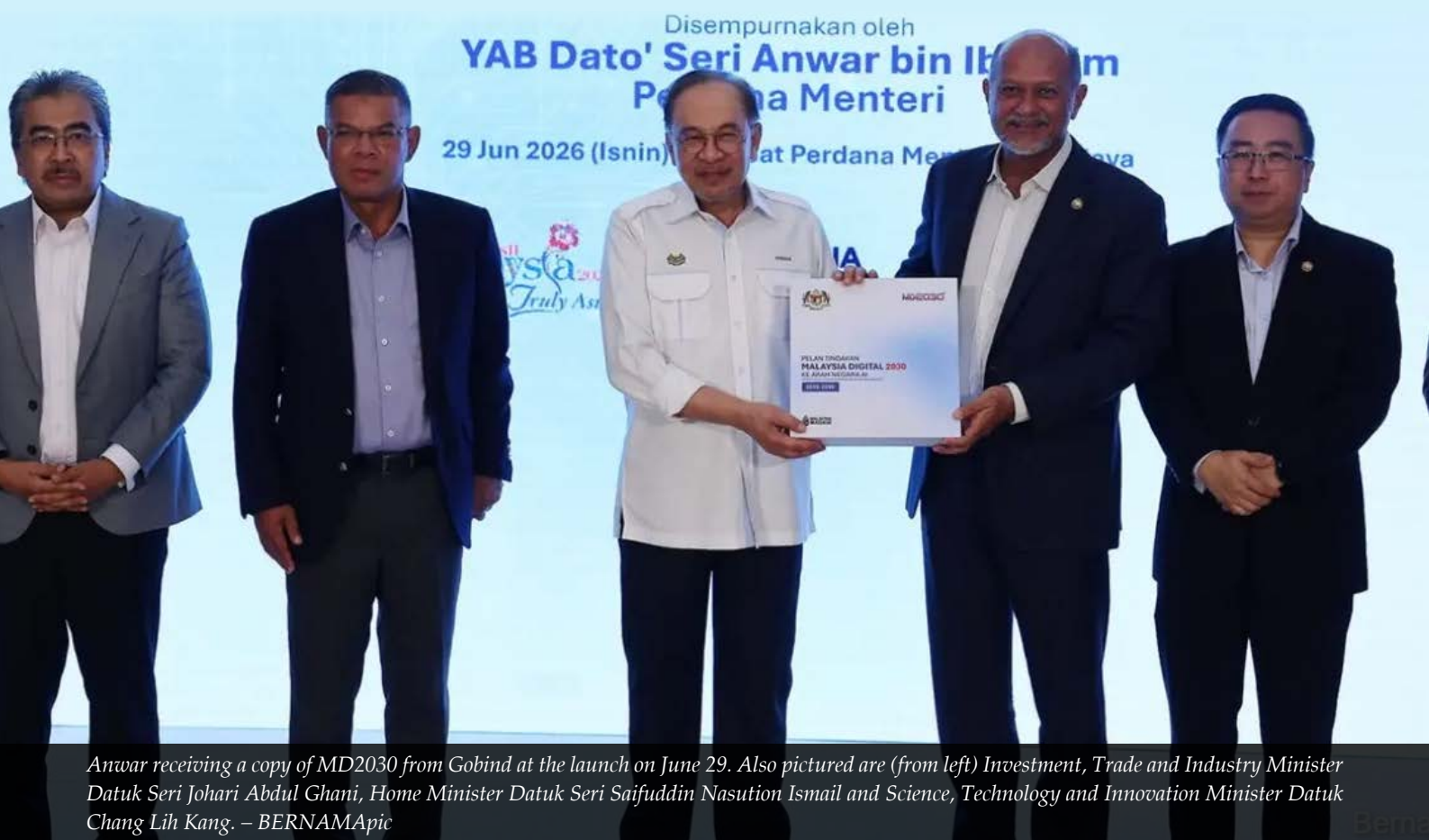


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Steps Toward Factory-Wide Pressure Optimization



Anwar: MD2030 A Strategic Initiative to Tackle AI, Automation and Data-Driven Economy



Anwar receiving a copy of MD2030 from Gobind at the launch on June 29. Also pictured are (from left) Investment, Trade and Industry Minister Datuk Seri Johari Abdul Ghani, Home Minister Datuk Seri Saifuddin Nasution Ismail and Science, Technology and Innovation Minister Datuk Chang Lih Kang. – BERNAMApic

The Malaysia Digital 2030 (MD2030) Action Plan unveiled on Monday (June 29) aims to prepare the nation for the rise of artificial intelligence (AI), automation and the data-driven economy.

In a Facebook post, Prime Minister Datuk Seri Anwar Ibrahim said the plan would also strengthen Malaysia's resilience against geopolitical uncertainty and global digital economy competition.

"Our priority is to ensure each initiative is carried out in a structured, disciplined and impactful way to benefit the people,

enhance business competitiveness and steer Malaysia towards becoming an inclusive AI nation by 2030," he said.

The MD2030 Action Plan, which Anwar launched, is a national blueprint for 2026-2030 that marks a major shift from Malaysia being a technology user to a producer of home-grown innovation.

Speaking at a meeting of the National Digital Economy and Fourth Industrial Revolution Council (MED4IRN), Anwar said that government digital services must be developed internally and coordinated

by the Digital Ministry through the National Digital Department.

He said the move was important to safeguard national data security and sovereignty, reduce reliance on external parties and develop digital expertise within the public sector.

"Insyaa-Allah, with the full commitment of the Madani Government machinery, MD2030 will be a national agenda that reshapes how Malaysians work, deliver services and build the nation's future," he said.



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Singapore's Agnes AI Enters Global Top 10 AI Lab Rankings, Supports National Push to Upskill 40,000 Tech Professionals

Agnes AI delivers globally ranked agentic and image AI performance while advancing cost-efficient AI access for emerging markets

Agnes AI, a Singapore-headquartered AI model company that has built and trained its own multimodal foundation models entirely in-house, today announced that its proprietary models have entered the global top 10 AI labs across three independent AI benchmark rankings, marking a significant milestone for Singapore's ambition to become a builder of frontier AI systems, talent, and infrastructure.

The latest rankings on **Claw-Eval** and **Artificial Analysis** follow Agnes AI's earlier top 10 AI labs placement on **PinchBench**, a globally recognised agentic model evaluation benchmark. Together, the results establish Agnes AI not as a one-off contender, but as a consistently competitive AI laboratory built in

Singapore and now appearing alongside global leaders such as Anthropic, OpenAI, Google, DeepSeek and other major AI labs.

The announcement also follows Agnes AI's participation in the **Singapore National AI Impact Programme**, launched with support from IMDA and AI Singapore to upskill 40,000 tech professionals. Agnes AI was featured among participating technology companies in the national initiative, with **Alex Ang, Co-Founder of Agnes AI** joining the programme announcement alongside **Senior Minister of State Tan Kiat How** and other ecosystem leaders.

"Singapore's National AI Strategy 2.0 set out a clear ambition: that Singapore should be a builder of AI, not merely

an adopter of it," said Ang. "These benchmark results are evidence that this ambition is being realised. Agnes AI was built here, trained here, and is now recognised among the world's top 10 AI labs, competing on equal terms with some of the largest AI companies globally. Our goal has always been to build AI that is globally competitive, openly accessible, and independent of any single power or ecosystem. We are just getting started."

At the core of Agnes AI's strategy is a **model-first approach to agentic intelligence**, supported by proprietary system-level innovations including **RLAF**, **DSPO**, and **UV**, which are designed to enhance models' ability to self-correct, reason over longer horizons, and perform complex, multi-step tasks.



NATIONAL AI IMPACT PROGRAMME – LAUNCH OF AIxTECH

Supported by: TeSA, IMDA, SkillsFuture SG, Wsg, AWS, Google, Microsoft, OpenAI, Sapiens, Z.AI



Photo Caption: Agnes AI's participated in the Singapore National AI Impact Programme, launched with support from IMDA and AI Singapore.

Agnes AI's latest benchmark results span both agentic text models and image models, reflecting the company's broader multimodal capabilities across text, image and video generation.

On **Claw-Eval**, Agnes-2.0-Flash ranked among the global top 10 AI labs for agentic model performance. Claw-Eval evaluates agentic AI systems that power autonomous agents capable of executing multi-step tasks, reasoning across complex workflows, and taking action in real-world environments. The benchmark assesses reliability, execution quality, and practical performance beyond controlled lab conditions.

On **Artificial Analysis**, Agnes-Image-2.0-Flash ranked among the global top 10 AI labs for image editing performance. Artificial Analysis independently evaluates model performance across a wide field of global AI labs, with image evaluations conducted through blind review by independent evaluators. Agnes-Image-2.0-Flash is also ranked #1 for price among the selected models, reinforcing Agnes AI's position as one of the most

cost-efficient frontier image AI options available to developers and enterprises.

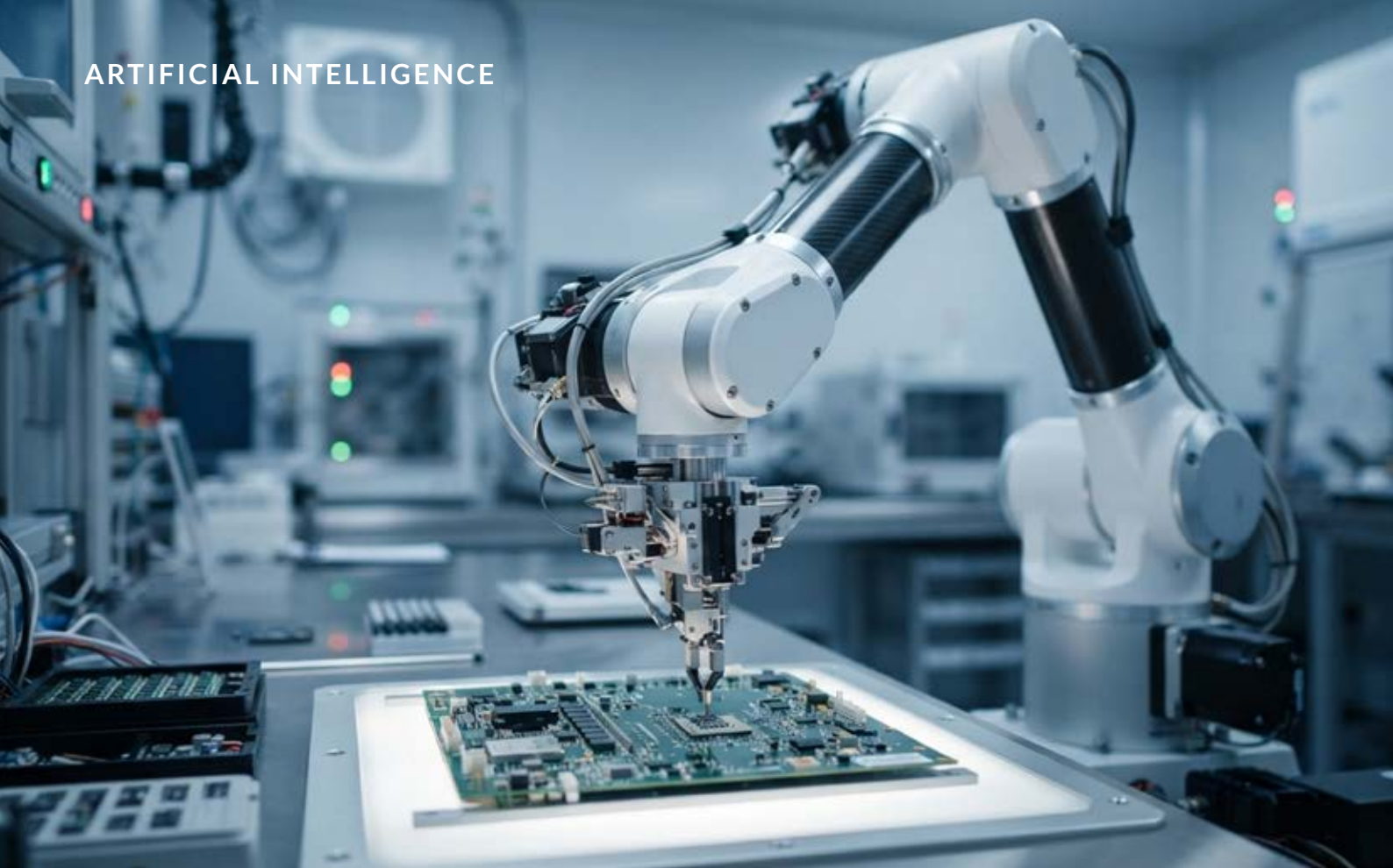
These results follow Agnes AI's earlier top 10 entry on **PinchBench**, making Claw-Eval and Artificial Analysis its second and third consecutive global top 10 benchmark entries. According to the company, Agnes AI is the first Singapore-born AI model company to enter the global top 10 across these international AI lab rankings.

Beyond benchmark performance, Agnes AI is positioning itself around accessibility and affordability, with a particular focus on cost-efficient AI deployment for developers, enterprises, and emerging markets that may otherwise be priced out of frontier AI capabilities.

Agnes-2.0-Flash is currently priced at:

- Input: US\$0.03 per million tokens
- Output: US\$0.15 per million tokens





According to the company, this places Agnes-2.0-Flash at approximately half the output price of comparable models such as DeepSeek-V4 Flash, while delivering top 10 global agentic performance on Claw-Eval.

For image generation and editing, Agnes-Image-2.0-Flash is priced at:

- US\$3.00 per 1,000 images

This places Agnes-Image-2.0-Flash as the #1 model for price among the selected image editing models on Artificial Analysis, while also ranking in the global top 10 for image editing performance. At US\$3.00 per 1,000 images, Agnes-Image-2.0-Flash is significantly below the market average of approximately US\$30.00 per 1,000 images, reinforcing Agnes AI's focus on making high-quality multimodal AI accessible at scale.

"Top-tier AI performance should not require top-tier pricing," said Bruce Yang, CEO of Agnes AI. "For developers,

enterprises, and emerging markets running high-frequency AI workloads, cost matters. Our focus is to make globally competitive AI accessible, scalable, and practical for real-world deployment."

Agnes AI has built its full multimodal stack, spanning text, image, and video generation, from Singapore. The company said its latest benchmark results provide independent validation that a Singapore-born AI lab can compete on the same global leaderboards as the world's most recognised AI companies.

As global competition intensifies around sovereign AI and AI infrastructure, Agnes AI is positioning itself as a neutral, independent alternative in an increasingly fragmented landscape.

"AI is already being deployed at a national level," said Yang. "We see ourselves as neutral infrastructure, similar to Switzerland during the Cold War, enabling access without alignment to any single power."

Agnes AI's model suite spans agentic text models, image generation and editing models, and video generation capabilities, supporting use cases across enterprise automation, content generation, search, and developer workflows. Agnes AI is also preparing to expand enterprise API services, giving developers and organisations access to its model suite across text, image, and video generation.

As the AI race shifts toward cost, usability, and real-world deployment, Agnes AI is positioning itself as a Singapore-built model company focused on benchmark-validated performance, affordability, neutrality, and scalable access for global markets.

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The Indian Workers Training AI Robots to Take Their Jobs

With a smartphone strapped to her head, Nagireddy Sriramyachandra films herself slicing mangoes in her kitchen in India to train AI-powered robots to take on household jobs in the future.

Earning just over two dollars for an hour of video, her mundane recordings are invaluable for global tech companies teaching machines how to move like humans in the real world.

The 25-year-old is one of a growing army of thousands of AI system trainers in the world's most populous country.

"Who else will give you 250 rupees an hour just for doing housework?" said Sriramyachandra from her kitchen in Chennai in southern India's Tamil Nadu state.

"I may get a robot myself in the future," she added.

Artificial intelligence chatbots and image generators crunch reams of digital data, but building systems to navigate real-life environments is more challenging.

Developers think feeding first-person footage, called "egocentric data", into specialised AI models will help robots copy humans.

Some AI trainers work at home, others in factories or specialised studios – using video glasses, head-mounted cameras and motion sensors.



With a smartphone strapped to her head, Nagireddy Sriramyachandra films herself slicing mangoes in her kitchen in India to train AI-powered robots to take on household jobs in the future. – AFP pic

"It blares 'hands not detected' when I'm not recording properly," said Sriramyachandra, who sends recordings via a special app to the AI data company Objectways.

The firm, which has offices in India and the United States, lists Fortune 500 multinationals as clients. It works with Amazon SageMaker, a platform for machine learning models.

'Better Things'

The humanoid robot market is booming, with investment bank Morgan Stanley predicting there could be over a billion in use by 2050, mostly for industrial and commercial purposes.

"Folding clothes, coffee making... cooking a very specific thing, sandwich making", Objectways head Ravi Shankar said, listing videos requested by clients.

"Some jobs are supposed to be taken over so humans can go and do better things."

In India, the emerging field of spatial AI is providing new employment – for now.

The 50-year-old CEO is US-based but hires workers from Tamil Nadu, where he grew up, one of India's international technology hubs.

At a Karur textile factory, busy with workers attaching labels to caps and ironing cloth bags, AFP saw eight people wearing head cameras and smart glasses supplied by Objectways.

India has positioned itself as a global middleman for the creation, processing and annotation of AI data.

"It's likely that these data collection services will increase," said digital labour expert Aditi Surie, from the Indian

Institute for Human Settlements in Bengaluru.

Informal Workers

India is aggressively developing its AI industry, but its leaders are aware that, alongside the technology's much-hyped benefits, automation poses risks.

Government think-tank NITI Aayog said that most discussions around artificial intelligence and labour “focus on white-collar professionals and predict an almost certain loss of jobs in the segment” without urgent action.

“Little attention, if any, is paid to how AI can serve India's 490 million informal workers, the very people who form the backbone of our economy,” it said in a report released ahead of a global AI summit in India this year.

The think tank has examined how the technology could help or harm dozens of professions – from cobblers to sewer cleaners, farmers to tea sellers.

For the last decade, 55-year-old Ponni has sat on a roadside in Bengaluru, the city

known as India's Silicon Valley, making flower garlands. She, too, has been paid to have a phone strapped to her forehead.

“The next generation... who might have to do work similar to mine – they will face a problem,” Ponni said.

Always Wearing a Camera

At an Objectways studio, AI system trainers' film themselves performing household tasks in fake, fully furnished apartment rooms.

After several thousand hours of filming, the wallpaper is changed to provide clients with variety.

“Today I sit here; tomorrow I stand there,” said engineering graduate Rani N., 21, on a break from filming herself, once again, folding a towel.

Each video lasts about four minutes, and she records around 90 a day – on nearly every conceivable spot on the bed.

She said the job is “tolerable” but feels like she's always wearing a camera.

In other rooms, colleagues arranged pencil sharpeners, water bottles and crayons in patterns, recording with depth-sensor cameras.

Qanat Consulting Services in Andhra Pradesh, an Objectways subcontractor, supplies about a dozen larger data firms with recordings.

Some of its 2,000 contributors perform tasks with motion-sensor bands on their “wrists, hands and legs”, CEO Thaslim Pattan said.

Manish Agarwal of Bengaluru-based Humyn Labs, not related to Objectways, records conversations as well as videos.

Contributors discuss assigned topics – ranging from politics to entertainment – for clients wanting to process speech patterns.

Agarwal denies that robots will steal jobs, believing that networks of humans and robots “will work together” one day, he said.

“A welder in India could be managing a robot welder in Prague,” he said.





Staff members from China Mobile Jinhua Branch conduct equipment debugging at a workshop of Ronma Solar Energy Group in Jinhua, Zhejiang province, in November 2023. —CHINA DAILY

5G, AI Transforming Manufacturing

In the bustling manufacturing hubs of Zhejiang province, a quiet but profound revolution is underway as the traditional hum of manual assembly lines is being replaced by the precise, synchronised movements of robotic arms and automated guided vehicles.

At the heart of this transformation is the integration of 5G networks and artificial intelligence, spearheaded by China Mobile Zhejiang Branch, which is empowering local enterprises to cultivate new, quality productive forces and leap from traditional manufacturing to intelligent production.

The robust computing power driving this industrial evolution stems from the China Mobile Yangtze River Delta (Jinhua) Data Center. As one of the largest data centers in East China, the facility spans 280 mu

(18.67 hectares) and is built to national A-level standards, earning a diamond five-star internet data center certification. With over 3 billion yuan (\$441.6 million) already invested, it currently houses 13,000 racks with an IT capacity of 86 megawatts.

Recognised by the Ministry of Industry and Information Technology as a 2025 national-level green computing facility, it maintains an advanced power usage effectiveness of 1.24, saving 34 million kilowatt-hours of electricity and reducing carbon emissions by 18,000 metric tons annually.

A 5G-Powered Sun

Nowhere is the application of this computing power more evident than at Ronma Solar Energy Group's 5G smart

factory in Jinhua, Zhejiang. As a State-level high-tech enterprise focusing on monocrystalline silicon solar cells and photovoltaic modules, Ronma Solar Energy Group has become a benchmark for the deep integration of high-end equipment manufacturing and the digital economy.

Walking into the factory's massive workshop, one is greeted by a futuristic scene: hundreds of automated guided vehicles navigate autonomously without magnetic strips or QR codes, relying instead on 5G-enabled visual navigation and AI algorithms for real-time dynamic mapping.

Xiong Zhoushi, general manager of China Mobile Jinhua Branch, highlighted the unprecedented scale and stability of this digital infrastructure. "Our factory

spans 580 meters in length and 100 meters in width. We have over 800 devices, including 223 AGVs, all connected via 5G. Since it began operating, there has not been a single network interruption,” Xiong said.

Xiong further explained the intricate automated workflow. “Our workshop has 14 process steps. For instance, after a battery cell completes the oxidation process, it is automatically loaded onto an AGV, which then follows programmed instructions to move seamlessly to the next production stage. Everything is unmanned and automatically controlled by our software systems. Our daily production capacity for battery cells is 3.78 million pieces, and actual output has reached 3.7 million. This 97 percent capacity utilisation rate is currently the highest in the country’s photovoltaic industry.”

The integration of AI has penetrated every facet of Ronma’s operations. The factory utilises a digital twin platform that creates a precise 1:1 mapping of the physical production line. This allows for automatic roaming and first-person AI digital human inspections, which automatically pop-up equipment

ledgers as they pass by machines. This transparency even allows overseas clients to remotely check their order progress, reducing overseas client reception costs by 14 percent.

He Liang, dean of the Ronma Solar Research Institute, emphasised the transformative impact of these technologies on quality control and energy management.

“We’ve integrated AI visual inspection to replace manual checks, effectively solving issues like missed inspections and false positives. Our accuracy rate for identifying various defect categories now exceeds 90 percent, which has significantly reduced our labour needs,” said He.

“Furthermore, we’ve implemented an intelligent AI model for parameter tuning during high-temperature processes. This model dynamically analyses massive amounts of data to optimise variables, lowering energy costs by 9 percent. We also use predictive maintenance algorithms to detect hotspot risks, attenuation abnormalities and electrical connection issues before they cause downtime,” added He.



Cross-Industry Renaissance

Beyond the energy sector, China Mobile’s digital empowerment is catalysing upgrades across diverse traditional industries.

In the textile industry, Zhejiang Truelove Blanket Technology Co, known globally as the “World Blanket King”, has partnered with China Mobile to build the first cloud-based 5G textile intelligent inspection factory. Utilising 5G’s low latency and high reliability, the system monitors the operational status of 8,000 yarns in real time. If a yarn breaks or skips, the system instantly identifies it and halts the machine. Now, a single female worker can oversee 12 machines simultaneously. Defect lengths have been reduced by 90 percent, saving the company nearly 3 million yuan in annual labour costs.

Similarly, Zhejiang SAFUN Industrial Co, a national manufacturing single-champion enterprise, has utilised an AI research and development design agent to overhaul its development process. By leveraging intelligent parsing, virtual simulation and knowledge reuse, the company has slashed its research and development cycle from two months to just five days, which is expected to boost overseas orders by 30 percent annually.





In the traditional Chinese medicine sector, Zhejiang Shouxianqu Pharmaceutical Co has built the country's first "5G PON + Wi-Fi 7" 10-gigabit pharmaceutical park. The company is now taking its AI integration a step further with its "AI Ancient Formula" project. By utilising a dual-model strategy of "Tongyi Qianwen + DeepSeek", the system digitises ancient texts like Danxi Xinfu to automatically generate prescription plans. To support this, their computing resources are expanding from dual A100 GPUs to an 8-card A100 setup. Soon, an AI Q&A agent will allow managers to ask conversational questions like, "What was the wall-breaking qualification rate of lingzhi (ganoderma lucidum) spore powder in Workshop A last week?" and receive instant, data-driven answers.

Even the cultural sector is experiencing a digital renaissance. In Hengdian World Studios — known as China's Hollywood — the newly established Film and Television Cultural Industry Brain has accumulated over 3.9 billion pieces of structured data.

Lai Enhui, AIGC head at Zhejiang Gewu Zhizhi Culture Media, pointed out the

drastic changes in production speed. "A 120-minute AI short drama can now be completed in about two weeks. Our team can produce around 10 such dramas a month," Lai said. Utilising China Mobile's MoMA cloud model services, studios can render complex visual effects securely in days rather than months, while also pioneering new formats like AI comic dramas.

To ensure these technological leaps are not isolated success stories, China Mobile is actively working to replicate these models across the manufacturing spectrum.

Ni Jun, deputy manager of the government and enterprise department at China Mobile Jinhua Branch, outlined their strategic roadmap. "We are currently focusing on three major local industries: power tools, textiles and magnetic materials. Our approach is to first build a benchmark enterprise to extract standardised digital solutions," Ni said.

"We rely on our strong grid-based operational capabilities. In Jinhua, we have 74 grids covering all towns and

streets. Our grid managers can visit factories door-to-door to discuss digital transformation plans. We diagnose each enterprise's current digital maturity and provide tailored AI scenarios — filling in exactly what they lack — to drive industrywide cost reduction and intelligent transformation," he said. - China Daily/ANN



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PM Calls for More Companies to Leverage 5G, Strengthen the Digital Economy

More companies need to leverage 5G technology to boost productivity, innovation and competitiveness in an effort to strengthen the country's digital economy, said Prime Minister Datuk Seri Anwar Ibrahim.

In a post on the X platform today, he said the matter was discussed during a courtesy visit today from an Ericsson delegation led by its president and chief executive officer Börje Ekholm.

The prime minister said the meeting also provided an opportunity to discuss developments in digital technology, the expansion of 5G usage, and the potential for closer cooperation to strengthen

the economy, as well as the need to develop greener and more sustainable telecommunication networks in line with the nation's net-zero emissions aspiration.

Anwar said he appreciated Ericsson's confidence in Malaysia, particularly the company's recognition of the country's progress in developing a strong digital infrastructure, including 5G networks and data centres, as well as efforts to strengthen digital security and sovereignty.

He also welcomed Ericsson's commitment to developing local talent through training programmes, technology transfer, and collaborations with local universities and educational institutions.

"This effort is critical in producing a skilled workforce that is ready to meet the requirements of the economy of the future.

"Malaysia values the long-standing good relationship with Ericsson and is confident that the cooperation will continue to be strengthened based on stability and trust," he said.

He said continued cooperation between both parties has the potential to open up more opportunities to drive the growth of the digital economy and national prosperity.

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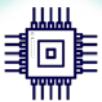
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Interview with Rahul Nambiar, CEO and Co-founder of Botsync

From Digital AI to Physical AI: Turning Investment into Real-World Automation on the Warehouse Floor



Rahul Nambiar

Co-founder & Chief Executive Officer (CEO), Botsync

Rahul Nambiar is the Co-founder and Chief Executive Officer of Botsync, a robotics company transforming factories and warehouses through autonomous mobile robots (AMRs) and no-code and vendor-agnostic orchestration software. He leads the company's strategy, product direction, marketing, and finance, driving Botsync's mission to make automation more accessible, flexible, and scalable for global enterprises.

1. To start off, could you share a bit about your journey and what led you to co-found Botsync?

My co-founders and I met as students at NTU, where we worked on various robotics projects including the development of autonomous systems. Our early products were catered to roboticists and students to support prototyping and research. Over time, we identified a significant gap in the market for Autonomous Mobile Robots built specifically for industrial material movement, and began developing our MAG line of AMRs.

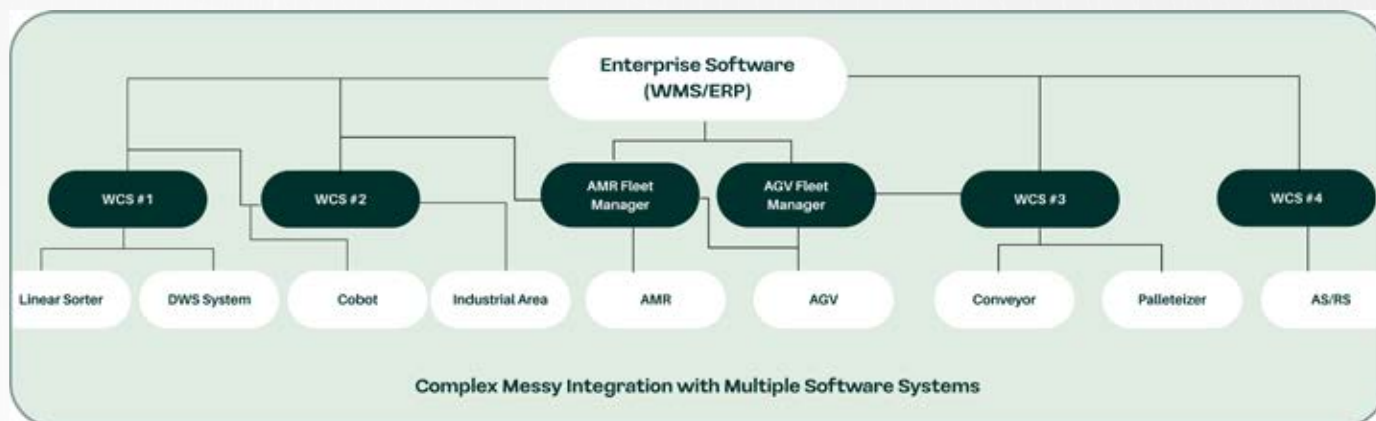
But as hardware vendors, we quickly ran into a problem that had nothing to do with the robots themselves. Factories and warehouses naturally source machines from multiple vendors based on cost and specialisation, and we found that these systems, despite working toward the same operational goal, simply didn't have a common language with which to

communicate and collaborate. Integration was broken, and orchestration was fragmented. Every time a client's workflow needed an update, our specialists had to dig into multiple codebases and effectively start over.

To fix this, we built SyncOS™, a no-code, vendor-agnostic automation control platform that manages mixed robotic

fleets, integrates every automation system in a facility, collects data from every stage of operations, and uses AI to make that data actionable. The result is a factory that functions as one cohesive unit rather than a collection of isolated systems. What started as a tool we built for ourselves has become what we believe is the most important layer in modern industrial automation.





2. We've been hearing a lot about AI moving beyond software into the physical world. From your perspective, what does this shift really mean for manufacturers on the ground?

For years, AI was essentially a software story — organising recommendations, predicting demand, streamlining back-office processes. That's valuable, but it doesn't move a pallet. What we're seeing now is AI crossing the threshold from screen to physical environment, and that changes everything for manufacturers.

The core distinction is this: digital AI is fed decades of internet-generated text, images, and interactions. Physical AI has to learn from the real world; from sensors, cameras, and LiDAR that perceive objects, edges, textures, spatial relationships, and constantly shifting environmental conditions. That data is far harder to collect, and far harder to make useful.

On the ground, this means machines that don't just process instructions but perceive, adapt, and act in real time. Our AMRs navigate dynamic environments alongside human workers, replan routes autonomously when conditions change, and operate across complex facility

layouts without requiring extensive infrastructure changes. But the real shift for manufacturers isn't just about smarter individual robots, it's about what becomes possible when you can collect, centralise, and act on data from every machine in a facility simultaneously. That's where Physical AI moves from an interesting capability to a genuine competitive lever. And that's precisely what we've been building toward with SyncOS™.

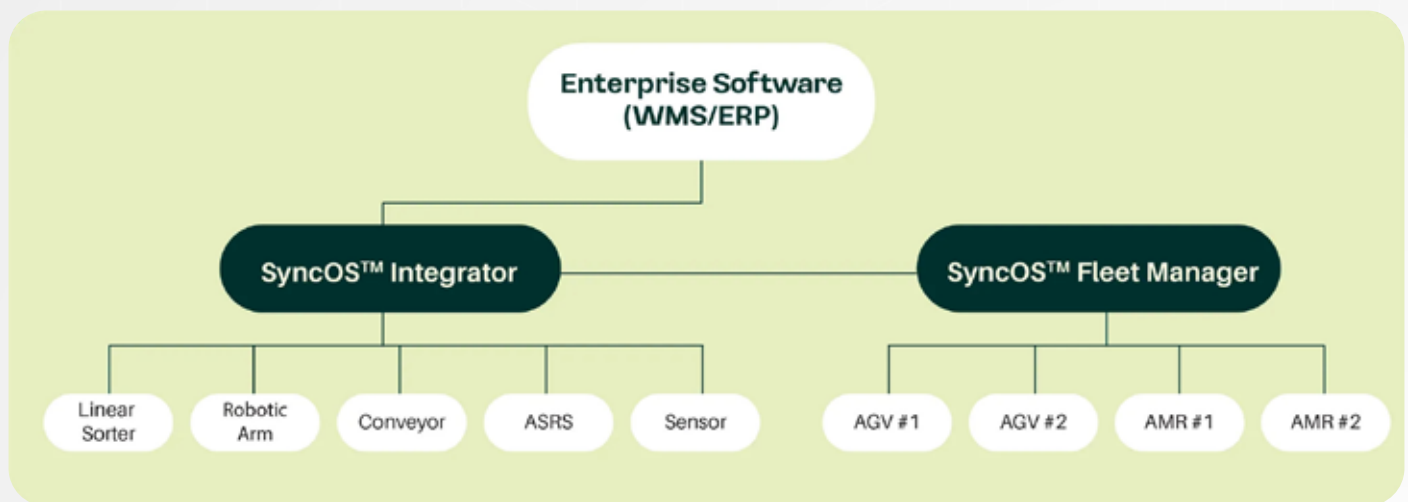
3. You've pointed to the warehouse floor as the next frontier for AI. What's driving that shift now, especially with the level of AI investment we're seeing across markets like Singapore?

Several forces are converging at once. Labour shortages across logistics and manufacturing aren't going away. If anything, they're intensifying structurally across Southeast Asia. Simultaneously, pressure to move goods faster and more reliably has never been greater, and manual operations simply cannot scale to meet demand.

Singapore is a particularly interesting lens for this. The government has been deliberate about channeling AI investment into productivity through programmes

like the National Robotics Programme and broader Smart Industry initiatives. That creates an ecosystem effect: access to capital, regulatory openness to deploy robots in real environments, and enterprises that are genuinely willing to pilot. At Botsync, we see ourselves as active contributors to that national agenda by helping translate government ambition into operational reality on the ground, one facility at a time.

The warehouse and factory floor sit right at the intersection of where that investment converts into measurable throughput gains most quickly. But I'd add one thing the investment conversation often misses: data infrastructure. The warehouse floor generates enormous amounts of operational data from every machine, every stage of production, every shift — and almost none of it is being used effectively today. Most factories are fragmented, with machines from multiple vendors running in data silos with no direct way to centralise or act on what they're producing. Solving that problem is what unlocks the real value of AI investment in this space. That's the opportunity we're building for.



4. There's strong investment going into AI today, but translating that into real productivity is another challenge. Where are we actually seeing measurable impact on the warehouse floor?

The honest answer is: where the use case is specific and the implementation is disciplined. Industry data shows that between 68% and 95% of industrial AI and robotics pilots stall before reaching production, and as few as 4% yield meaningful scaled business value. That's a sobering number, and it tells you something important — the technology isn't the bottleneck. The data infrastructure and integration layer are.

The places where we see genuine, sustained productivity impact are in repetitive, high-volume workflows, which is exactly where our AMRs are deployed. We've seen facilities cut internal material transport time by 50- 60% after deploying our robots, and that's sustained operational performance, not a controlled pilot figure.

What underpins all of this is SyncOS™, our fleet management and orchestration platform which gives operations teams real-time visibility and control across the entire facility, integrating with

existing warehouse systems rather than requiring a wholesale replacement. The companies that convert AI investment into real productivity treat it as an operations transformation with a clearly defined problem to solve. The technology performs best when the business problem leads, not the other way around.

5. Can you share a real deployment example — what kind of productivity gains or cost savings are companies actually seeing?

Across our deployments, we're seeing very tangible, measurable outcomes for customers. In one automotive manufacturing setup, for example, we automated internal material movement using our AMRs, which led to about a 12.5% increase in productivity and a noticeable improvement in throughput, while also reducing reliance on forklifts and manual handling. In logistics, a deployment in Singapore helped save roughly 90 man-hours per month, allowing the team to redeploy labour to higher-value tasks without increasing headcount. More broadly, what we consistently see is improved uptime, more predictable operations, and faster workflows.

What makes these results durable rather than just impressive in the first month is the

data layer. SyncOS™ continuously collects operational data from every machine at every stage, and that data compounds over time, enabling smarter decisions about charging schedules, routing, task allocation, and workflow sequencing. For most of our customers, this translates into ROI within two years, and in some cases up to a 30% reduction in operating costs driven by better utilisation of both people and infrastructure.

6. Compared to digital AI, working in a real-world environment is far more complex. What are some of the biggest challenges companies tend to underestimate?

A warehouse isn't a controlled test environment — it's a living, breathing operation. Layouts change. Seasonal inventory shifts the entire floor plan. Workers take shortcuts that no one documents. Lighting conditions vary. New equipment gets introduced. This is something we've engineered Botsync's AMRs specifically to handle; our navigation stack is built for dynamic environments, not just static mapped spaces, so the robots adapt as the facility evolves rather than breaking down every time something shifts.

The second underestimated challenge is the integration layer. Deploying robots is actually the simpler part. Connecting them meaningfully to your WMS, your ERP, or your conveyor systems, that's where projects stall. SyncOS™ is designed with this in mind, offering integration interfaces that work with legacy systems rather than demanding infrastructure overhauls.

Finally, there's change management, which almost everyone underestimates. Your workforce has to trust these systems enough to work alongside them productively. That takes deliberate effort and something we actively support customers through during deployment, because even the best robot fleet underperforms if the people on the floor aren't genuinely bought in.

7. A big part of this comes down to data from physical environments. How difficult is it to train AI to deal with navigation, object detection, and constantly changing conditions?

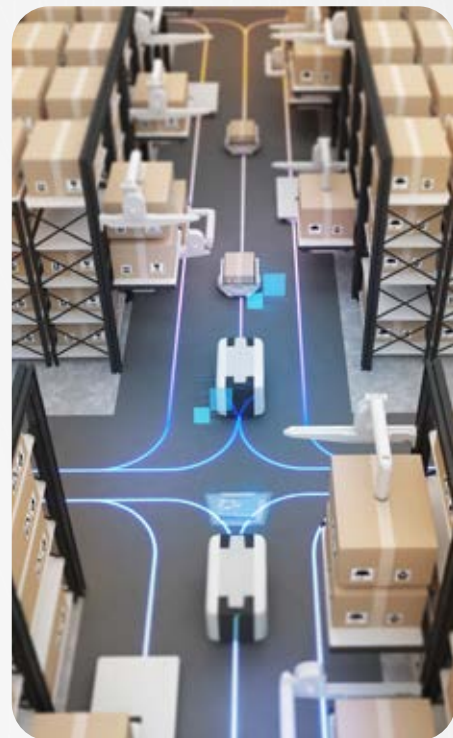
Genuinely hard, and consistently underestimated by anyone who approaches it from a digital AI background. The fundamental difference

is this: a language model gets trained on decades of internet-generated content that is abundant, structured, and largely pre-labelled by human intent. A robot navigating a warehouse floor learns from camera frames, depth signals, LiDAR point clouds, and spatial annotations that reflect the exact environment it will operate in. You cannot scrape a factory floor the way you scrape the internet.

This creates two problems that compound on each other. The first is coverage. Real-world data collection is never exhaustive. You might run normal operations for weeks and still never capture the edge cases that reality will eventually serve up — glare on a polished floor, a pallet sticking out by 12 centimetres, a worker stepping into a path at the wrong moment, a conveyor stopping unexpectedly mid-shift. These are precisely the situations where systems fail, and they're the hardest to collect data for at scale.

The second is environmental variability. A navigation model trained on a static facility map will degrade the moment that facility changes, and facilities change constantly. Layouts shift seasonally. New equipment gets added. Workers create informal pathways that no one documents. Our AMRs are built with SLAM-based navigation specifically so they don't

rely on fixed maps — they build and continuously update their understanding of the environment as it evolves, rather than breaking when it deviates from what they were trained on.



The honest answer to how we address the data problem more broadly is interoperability. By connecting every machine in a facility through SyncOS™ — AMRs, conveyor systems, robotic arms, sensors across every vendor — we collect production data across every stage of operations simultaneously. That gives us a training dataset that is not just larger but genuinely more diverse: data from machines that are wheeled, tracked, and stationary; from environments that are dynamic and varied; from edge cases that accumulate naturally over real deployments. An AI model trained on data from that kind of interconnected, multi-vendor environment will always be more robust than one trained on a single robot type in a single facility. That's the data flywheel that SyncOS™ is designed to build — and it compounds in value with every deployment we run.





8. Many facilities are still running on legacy systems. How realistic is it for them to adopt Physical AI without major disruption?

More realistic than most people assume, but only if the approach is right. The common mistake is treating automation as an infrastructure replacement project. Most brownfield facilities contain a patchwork of older controls, legacy machines, partial upgrades, and disconnected software platforms that were never designed to communicate with each other. Trying to rip and replace all of that at once is exactly how projects stall.

The smarter path is a software-first, integration-led approach. Rather than requiring legacy systems to be replaced, you build a layer above them that enables them to communicate and share data — which is fundamentally what SyncOS™ does. Our platform connects to existing PLCs, conveyors, and legacy systems through standard integration interfaces, making them legible to the broader automation ecosystem without requiring you to touch the underlying hardware. We've deployed in facilities where some machines are decades old, and the interoperability layer handles the translation.

What this means practically is that manufacturers don't have to choose between modernising and maintaining operations. You can start with a single workflow, a specific bottleneck, a handful of robots — prove the value, collect the data, and expand from there. The key insight from our deployments is that the data you collect from even a modest initial deployment compounds in value over time. The facility learns, the models improve, and the next workflow you automate benefits from everything you've already observed. Legacy doesn't have to mean stuck. It just means the integration layer matters even more.

9. If a company decides to take a “wait and see” approach over the next few years, what risks are they really taking?

The competitive gap between early movers and laggards in warehouse automation is already widening, and I see this directly through the customers we work with. The companies that deployed AMRs two or three years ago aren't just ahead on technology — they've built institutional knowledge, trained their people, refined their workflows,



and accumulated operational data that continues to make their systems smarter. That learning compounds in ways that are very difficult to close quickly.

There's also a structural cost dimension that's often underestimated. Labour availability is declining in many markets, and the longer you defer, the more exposed your operation becomes to that reality. A "wait and see" position on automation is becoming increasingly difficult to defend to customers who need predictable, scalable operations from their partners.

And perhaps most importantly: the data advantage. Every month an early mover's system runs, it generates more operational data, surfaces more patterns, and enables smarter decisions. That data flywheel is one of the hardest things to catch up on once you're behind. We consistently tell prospective customers that starting doesn't have to mean going all-in. Our modular deployment approach lets you begin with a single workflow, a defined ROI target, and a handful of robots, and scale from there. Waiting isn't neutral. It's a strategic choice with real and compounding consequences.

10. Looking ahead, how do you see warehouses evolving over the next five to ten years as Physical AI becomes more embedded in operations?

The defining shift will be from automated warehouses to truly adaptive ones. Today, even the most sophisticated automated facilities are largely optimised for a fixed operating model. The warehouse of 2030 will reconfigure itself dynamically — rerouting workflows, redeploying robot fleets, adjusting strategies in real time based on order mix, staffing levels, and live supply chain signals.

We'll also see the data advantage become decisive. As interoperability becomes standard and production data flows freely across every machine in a facility, AI won't just surface patterns after the fact, it will predict anomalies before they occur, recommend process optimisations dynamically, and enable manufacturers to move from reactive decision-making to proactive optimisation. The prompts will get simpler even as the intelligence behind them grows more sophisticated. Instead

of scraping through multiple log files to understand a bottleneck, an operations manager will simply ask "what's limiting my production capacity right now?" and get an answer with recommended actions in seconds. The human role will evolve significantly too. It won't disappear, but it will shift toward exception handling, oversight, and the contextual judgement that Physical AI still struggles with. The workers who thrive will be those who learn to collaborate with these systems — and part of our responsibility as a company is making that collaboration intuitive rather than intimidating.

At a macro level, I believe Physical AI will start to redraw some of the economics that historically drove offshoring. When you can automate a significant portion of your warehouse and manufacturing operations, proximity to the customer and supply chain resilience start to outweigh pure labour arbitrage. For markets like Singapore and for companies like Botsync building this technology here, that's not just an industry trend. It's a genuine and exciting strategic opportunity.





Data Sovereignty: The Missing Foundation of Sustainable and Trusted Supply Chains

Why ASEAN's next generation of sustainable industrial ecosystems must protect not only physical resources, but also the data that gives them value

By Ir. Ts. Prof. Dr Chee-Fai Tan

Vice President (Technology), Malaysia Association for Sustainable Supply Chain & Innovation (MASSCI)
Deputy Vice-Chancellor, Kuala Lumpur University of Science & Technology (KLUST)

When we talk about sustainable supply chains, the conversation usually begins with carbon emissions, renewable energy, responsible sourcing, waste reduction and the circular economy. These are undoubtedly important priorities. However, as supply chains become increasingly digital and interconnected, there is another critical resource flowing through the ecosystem that deserves far greater attention, which is “data”.

Today, almost every activity within a supply chain generates data. Purchase orders create transaction data, machines and energy meters generate operational and consumption data, logistics systems capture movement and location information, while supplier assessments and sustainability reporting generate increasingly valuable ESG and carbon data. As companies accelerate their digital transformation, this information is no

longer confined within the boundaries of a single organisation. It moves continuously between manufacturers, suppliers, logistics providers, customers, cloud platforms, AI systems, technology partners and regulators.

This growing dependence on data raises an important question, who controls the data behind our sustainable supply chains? As organisations increasingly rely on

digital platforms and artificial intelligence to make procurement, production, logistics and sustainability decisions, understanding where critical data resides, who can access it, how it is being used and under whose jurisdiction it is processed becomes increasingly important.

This is why I believe data sovereignty should no longer be viewed simply as an IT, cybersecurity or regulatory issue. It has become a boardroom issue because data increasingly represents business value and strategic knowledge. It is a sustainability issue because carbon accounting, ESG reporting and supply chain traceability depend on reliable information. And it is a competitiveness issue because organisations that can govern, protect and responsibly utilise their data will be better positioned to participate confidently in increasingly digital and sustainability-driven global value chains.

Ultimately, there can be no truly sustainable digital supply chain

without trusted data. And there can be no trusted data ecosystem without appropriate governance over how that data is collected, stored, accessed, shared, used and protected. As we build the next generation of sustainable supply chains, we must therefore recognise that managing physical resources responsibly is only part of the equation. We must also manage the data behind those resources responsibly.

The Supply Chain Is Becoming a Data Chain

Consider a manufactured component moving through an international supply chain. Its physical journey may begin with raw materials, followed by processing, manufacturing, assembly, testing, transportation and, eventually, delivery to the customer.

But alongside this physical journey, there is now a second journey taking place: a data journey.

At every stage, information is being created about the material's origin, supplier, production process, quality, energy consumption, carbon footprint, transportation history and sustainability credentials. Increasingly, the physical product and its digital history are becoming inseparable.

A customer today may want to know not only whether a component meets technical and dimensional specifications, but also where its materials came from, how much carbon was embedded in its production, whether its suppliers complied with environmental requirements, and whether the sustainability claims can be independently verified.

This is becoming more important as sustainability requirements extend deeper into global value chains. The GHG Protocol, for example, provides a framework for companies to account for emissions across both upstream and downstream activities, while also



highlighting the importance of supplier-specific primary data in improving the quality of Scope 3 emissions reporting.

At the same time, mechanisms such as the European Union's Carbon Border Adjustment Mechanism are making embedded-emissions information increasingly relevant to international trade. For affected products entering the EU, the ability to measure, document and verify carbon-related data is no longer only a sustainability exercise. It can directly influence market access, customer confidence and commercial competitiveness.

For ASEAN businesses, the implication is clear. As supply chains become more connected, automated and sustainability-driven, companies are no longer managing only the movement of materials and products. They are also managing the movement of information, evidence and digital trust across organisational and national boundaries.

Sustainability is therefore becoming increasingly data dependent. The ability to generate, govern, share and verify trusted data will become just as important as the ability to manufacture efficiently and sustainably.

What Does Data Sovereignty Really Mean?

Data sovereignty is sometimes interpreted simply as requiring data to remain within national borders. While data location is certainly one part of the discussion, I believe this interpretation is too narrow for modern industry and increasingly complex global supply chains.

For an industrial organisation, the more practical issue is control. Where is our critical data stored and processed? Who can access it, and for what purpose? Under which jurisdiction is it governed? Who owns the data and the insights generated from it? Can a cloud or technology provider retain or reuse the information?

Can it be transferred to another party? If we decide to change platforms or service providers, can we retrieve our data in a usable form? And perhaps most importantly, do we really understand how our data moves across suppliers, customers, digital platforms and national borders?

These questions have become increasingly important because data today rarely remains within a single organisation. A manufacturer may depend on cloud infrastructure in one country, an AI platform operated from another, suppliers located across several economies, and customers requiring sustainability information in yet another market. A single industrial dataset may therefore pass through multiple systems, organisations and jurisdictions before it contributes to a business decision.

Data sovereignty, therefore, should not be about preventing data from moving. Modern supply chains simply cannot



operate effectively in isolation. ASEAN manufacturers are deeply connected to regional and global value chains, while cloud computing, artificial intelligence and digital platforms increasingly rely on distributed infrastructure and cross-border collaboration.

The real objective should be to enable data to move with appropriate control, accountability and transparency. I describe this principle as:

Sovereignty without isolation.
Connectivity without losing control.

This distinction is important. Data has tremendous value when it can be responsibly shared and used. The challenge is to ensure that organisations remain aware of where their critical information is going, how it is being used and what rights they retain over it. In this sense, data sovereignty is not an obstacle to digital transformation. Properly designed, it creates the trust needed for digital transformation to scale.

Sustainable Procurement Is Becoming Data-Driven Procurement

From the MASSCI perspective, this issue becomes particularly important in sustainable procurement.

For decades, procurement decisions have largely been driven by three fundamental considerations: cost, quality and delivery. These remain essential, but they are no longer sufficient. Companies are increasingly expected to understand the environmental and social impact associated with what they purchase and from whom they purchase it.

Procurement teams may now need to consider a supplier's carbon intensity, energy use, environmental performance, responsible sourcing practices, circularity, resilience and broader ESG risks. This



means that sustainable procurement increasingly depends on information coming from organisations outside the buyer's direct control.

Digital transformation is making it possible to manage this complexity. Digital procurement platforms can consolidate supplier information, while artificial intelligence can analyse large numbers of suppliers, identify risk patterns and support sourcing decisions that incorporate both commercial and sustainability considerations. In future, AI may increasingly help procurement teams compare suppliers not only according to price and lead time, but also according to carbon footprint, sustainability performance and supply-chain risk.

However, there is a fundamental principle that we should not overlook:

We should not automate trust before establishing the quality of the data upon which that trust depends.

An AI system may be extremely sophisticated, but if the supplier information feeding that system is

inaccurate, outdated, incomplete or unverifiable, the technology may simply process unreliable information more efficiently. More automation does not automatically create more trust.

This is why the challenge is not simply to collect more data. Organisations need to understand the provenance, quality, ownership, integrity and accountability behind that information. Where did the sustainability data originate? Who provided it? Can it be independently verified? Has it been modified? Is the methodology consistent? And can the organisation continue accessing the evidence if a digital platform or technology provider changes?

These questions become particularly important for Scope 3 emissions and supply-chain sustainability, where organisations often depend heavily on information supplied by upstream and downstream partners. The deeper sustainability requirements move into the supply chain, the more dependent companies become on data that they do not generate themselves.



This is where data sovereignty and sustainable procurement converge. Sustainable procurement requires visibility beyond the first tier of suppliers, while data sovereignty provides the governance needed to ensure that the information supporting those decisions remains trustworthy, appropriately controlled and accountable.

For MASSCI, this represents an important evolution in how we should think about sustainable supply chains. We are no longer managing only the movement of goods, materials and resources. We are increasingly managing the movement of trusted information that allows organisations to prove where products came from, how they were produced and whether sustainability commitments have genuinely been met.

In other words, sustainable procurement is becoming data-driven procurement, and data governance is becoming part of sustainability governance.

AI Changes the Equation

Artificial intelligence makes the question of data sovereignty even more urgent. Across industry, AI is beginning to

influence demand forecasting, inventory planning, supplier selection, predictive maintenance, logistics optimisation, energy management, carbon accounting and ESG analysis. Used well, these applications can help companies make faster decisions, reduce waste, improve resource efficiency and identify sustainability risks that would be difficult to detect manually.

But there is a fundamental reality behind every AI application: AI is hungry for data.

As organisations rush to capture the benefits of AI, enormous amounts of industrial information may be moving into AI platforms. Production records, machine data, engineering documents, supplier information, maintenance histories and operational knowledge may all become inputs for AI-assisted decision-making. The immediate focus is often on what the AI can produce. We should pay equal attention to what happens to the data we provide.

Where is that information processed and stored? Is it retained after the interaction? Who can access it? Can it be reused to improve another model or service? Does

the organisation retain ownership and control over the insights generated from its data? And when the relationship with a technology provider ends, can the organisation retrieve its information, knowledge and digital assets in a usable form?

These are not merely technical questions. They are strategic business questions because industrial data can represent decades of accumulated engineering knowledge. Process recipes, machine parameters, product designs, quality methodologies, maintenance practices, supplier intelligence and operational experience are often part of what makes one company more competitive than another.

This is why my concern about data sovereignty goes far beyond protecting databases or determining where servers are located. For industrial organisations, data sovereignty is ultimately about protecting the digital representation of engineering know-how and preserving the organisation's ability to control and benefit from it.

Generative AI adds another dimension. It has become remarkably easy for information to move from an organisation into an external AI environment through an everyday prompt, uploaded document or automated integration. The technology may be convenient, but convenience should not remove accountability. Organisations therefore need clear governance over what information can be shared with AI systems, which platforms are approved, how outputs are validated and where human accountability remains necessary.

Responsible AI and responsible data governance must consequently develop together. We cannot build trusted AI on data that we do not understand, cannot verify or no longer meaningfully control.

From Carbon Accounting to Carbon Intelligence

Carbon management provides a useful example of how AI, sustainability and data sovereignty are beginning to converge.

Traditionally, carbon accounting has largely been a process of collecting historical information, applying recognised methodologies and preparing reports. Digital transformation is changing this model. Data can increasingly be captured directly from electricity meters, machines, manufacturing systems, ERP platforms, logistics providers and suppliers. AI can then analyse these datasets to identify carbon hotspots, forecast future emissions, compare scenarios and recommend improvements.

The information journey begins with a physical activity, such as manufacturing, energy consumption or transportation, which generates operational data. This data is then used to perform carbon calculations, providing a measurable

picture of the associated environmental impact. AI analysis can further interpret the information, identify patterns and carbon hotspots, and generate insights for improvement. These insights contribute to credible ESG disclosure and ultimately support better-informed business decisions. In this way, physical activity, operational data, carbon measurement, AI and ESG reporting form a connected information chain in which the quality and integrity of data at every stage directly influence the reliability of the final decision.

This represents an important transition from carbon accounting to carbon intelligence. Instead of merely reporting what happened, organisations can increasingly use data to understand why it happened, predict what could happen next and determine what actions could reduce the environmental impact.

However, greater intelligence also creates greater dependence on data. A sophisticated AI model cannot

compensate for inaccurate meter readings, inconsistent supplier information or poor-quality operational records. If the underlying information is unreliable, the resulting carbon calculation and ESG disclosure may also be unreliable.

This leads to an important principle:

Carbon intelligence requires data integrity. ESG credibility requires data provenance. Sustainable supply chains require both.

We should therefore stop viewing data governance and sustainability governance as separate disciplines. As sustainability becomes increasingly digital and AI-enabled, data governance is becoming part of sustainability governance.

Blockchain Helps, But Technology Alone Cannot Create Trust

Blockchain and distributed-ledger technologies are frequently discussed as solutions for supply-chain traceability. They can certainly provide value by creating tamper-evident records for material provenance, certifications, transactions and selected carbon-related applications.

However, we should be careful not to confuse the immutability of a digital record with the truthfulness of the information contained within it.

Blockchain can make a record difficult to alter. It cannot make incorrect information true.

If inaccurate information enters a system at the beginning, preserving that information securely does not improve its accuracy. The same principle applies to AI: advanced technology does not automatically transform poor-quality information into trusted information.





A trusted sustainable supply chain therefore requires an ecosystem rather than a single technological solution. Reliable data capture, digital identity, cybersecurity, interoperability, verification, governance and clearly defined responsibilities all need to work together.

Technology can provide the infrastructure for trust, but governance creates the conditions for trust.

A MASSCI Perspective: Five Foundations of a Trusted Sustainable Supply Chain

From the MASSCI perspective, I believe the next generation of sustainable supply chains should be built around five interconnected foundations, namely, sustainability, digitalisation, sovereignty, traceability and trust. Sustainability defines the outcomes we seek, while digitalisation provides the visibility and intelligence needed to understand

increasingly complex supply chains. Data sovereignty ensures that strategically important information remains appropriately governed and controlled, while traceability provides the evidence needed to verify the origin, movement and sustainability performance of products and materials. Together, these foundations create trust, enabling organisations to collaborate, share information and participate confidently in increasingly digital and sustainability-driven global value chains.

Sustainability defines the outcome we want to achieve, such as responsible use of resources, lower environmental impact, greater resilience and the creation of long-term economic and social value.

Digitalisation provides the visibility needed to understand increasingly complex operations and supply chains. Without good data, many sustainability ambitions remain difficult to measure and manage.

Sovereignty ensures that organisations retain appropriate control over strategically important information. It requires clarity about who can access, process, transfer and reuse data, while still allowing legitimate data flows and collaboration.

Traceability connects physical products with their digital histories. It allows businesses to understand where materials originated, how products were manufactured and transported, and whether sustainability requirements were met along the journey.

Finally, trust converts these capabilities into economic value. A supplier that can demonstrate credible sustainability performance becomes more valuable to customers. A manufacturer capable of providing reliable product-level sustainability information becomes better positioned to respond to international market requirements. An ecosystem capable of exchanging trusted information can collaborate with greater confidence.

These five foundations should not be implemented independently. Their real value comes from their integration. Sustainability provides the purpose, digitalisation provides visibility, sovereignty provides control, traceability provides evidence, and trust provides value.

Data Sovereignty Must Move from the Server Room to the Boardroom

For this reason, I strongly advocate that data sovereignty must move from the server room to the boardroom.

For too long, discussions about data have been delegated primarily to IT, cybersecurity or compliance teams. These functions remain essential, but the economic and strategic importance of industrial data means that boards and senior management must become directly engaged.

Leadership teams should understand what their most valuable industrial data is, where it resides and where it travels. They should know which suppliers, technology providers, cloud platforms and AI systems can access it. They should understand which business and sustainability

decisions depend on that data and what would happen if the organisation suddenly lost access to it.

They should also ask a question that is often overlooked during digital transformation: If we need to change technology providers tomorrow, can we take our data, knowledge and digital capabilities with us?

These are questions of business continuity, strategic autonomy and organisational resilience, not simply IT administration.

The objective of data sovereignty is not to lock information away. Data creates greater value when it can be responsibly used, analysed and shared. The objective is to give organisations the confidence to use, share and extract value from data without unnecessarily surrendering control over it.

ASEAN's Opportunity: Building Trusted Digital Ecosystems

This creates an important opportunity for ASEAN.

Our region is deeply embedded in global manufacturing and supply-

chain networks. Components may cross several national borders before becoming finished products, while the information associated with those components may travel even further through cloud platforms, customer systems and AI applications. Digitalisation will only deepen these connections.

ASEAN should therefore avoid framing the future as a choice between unrestricted data movement and excessive data isolation. What we need are trusted industrial data ecosystems that enable information to move where legitimate business needs require it while maintaining appropriate governance, accountability and protection.

This is particularly important for SMEs. Smaller manufacturers and suppliers are essential to ASEAN's industrial ecosystem, but many do not have the digital resources of multinational corporations. They should not have to surrender control over valuable industrial knowledge simply because they rely on external cloud, AI or digital-platform providers. At the same time, sustainability and data requirements should not become so complex that SMEs are effectively excluded from global value chains.





Governments, technology providers, universities, industry associations, large corporations and supply-chain partners therefore have a shared responsibility to develop practical standards, affordable technologies, interoperable systems and workforce capabilities that enable companies of different sizes to participate confidently.

From the MASSCI perspective, this means bringing together three agendas that have too often developed separately:

Sustainability. Digital transformation. Data sovereignty.

Increasingly, we cannot advance one successfully without considering the other two.

The Next Competitive Advantage Is Trust

For decades, companies have competed to build supply chains that are faster, cheaper and more efficient. Those objectives will remain important, but the next generation of global supply chains will increasingly compete on another dimension: trust.

Can customers trust the carbon information attached to a product? Can manufacturers trust sustainability declarations provided by their suppliers?

Can regulators and buyers trust digital certificates? Can management trust recommendations generated by AI? And can an organisation trust that its strategically important industrial information remains appropriately governed as it moves across increasingly complex digital ecosystems?

Every one of these questions eventually returns to data.

This is why I believe data sovereignty should become a strategic priority for sustainable industrial development. It should not be approached primarily through fear of losing data or restricting its movement. It should be approached as a capability that enables organisations to participate more confidently in the digital economy.

The sustainable supply chain of the future will therefore not be built only with greener factories, renewable energy, circular materials and efficient logistics. It will also be built on trusted data.

Sustainability tells us what we need to achieve. Digital transformation gives us the capability to achieve it at scale. Artificial intelligence gives us the intelligence to optimise it. Data sovereignty gives us the confidence and control needed to trust the digital ecosystem supporting it.

For ASEAN, the opportunity is not simply to create greener supply chains. It is to build industrial ecosystems that are smart, sustainable, resilient, sovereign and trusted.

And perhaps the most important change in mindset is also the simplest:

Data is no longer merely supporting the sustainable supply chain. Data is becoming part of the sustainable supply chain itself.

About the Author



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Prof. Tan is a strong advocate for data sovereignty, responsible AI and trusted technology adoption, particularly at the intersection of industrial competitiveness, sustainable supply chains and digital transformation. His work brings together industry, engineering, academia and international collaboration to advance practical approaches to trusted and sustainable industrial ecosystems.

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AI-Ready Industry: The Missing Layer Is Not the AI

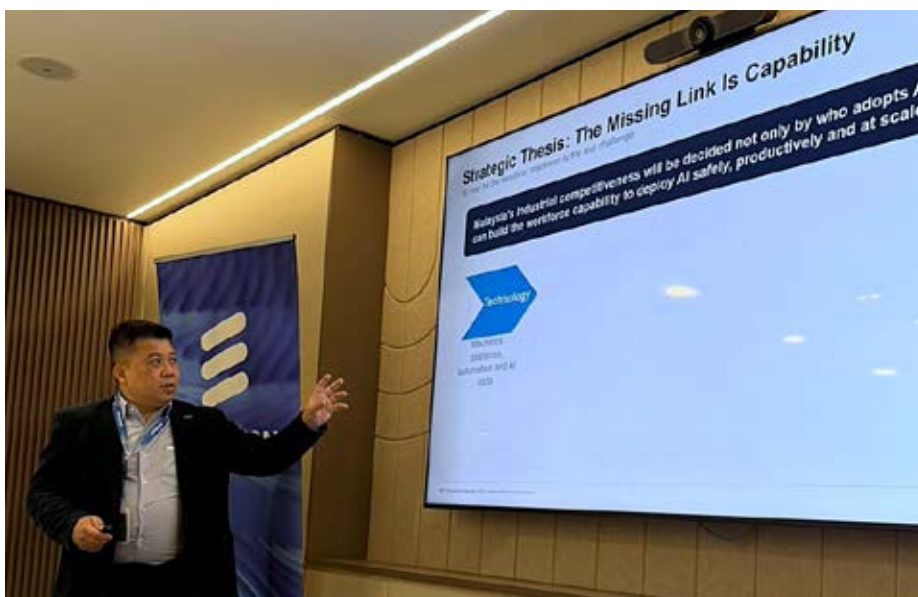
Malaysia has built much of the digital foundation. The competitive question now is whether manufacturers can turn connectivity, data, integration and talent into productivity.

Artificial intelligence has become extraordinarily easy to access. A manufacturer can open an AI tool today, upload a dataset, ask a question and receive an answer within minutes. That accessibility is one reason AI adoption can appear deceptively simple.

Industrial adoption is different. A factory is a physical operating system. Machines

need to communicate. Production data need to be usable. Legacy equipment must connect with newer systems. Cybersecurity matters. Operators need to understand what the technology is telling them. Engineers need to know how to integrate it. Management still has to decide whether the investment creates enough value to justify the cost and disruption.

This was the central reality that emerged from a recent MEIF Strategic Industry Roundtable on **Building AI-Ready Industrial Ecosystems: Connectivity, Capability and Trust Infrastructure**. The discussion, held under the Chatham House Rule, consistently pointed towards one conclusion: AI readiness is much bigger than AI adoption. It is an ecosystem capability question.



Connectivity = part of the factory

We traditionally think of connectivity as communications infrastructure. In increasingly automated factories, it is becoming part of the production environment itself.

Connected machines generate data. Cameras feed machine-vision systems. Remote specialists troubleshoot equipment. Robots interact with systems elsewhere on the production floor. Edge and cloud applications process information that may need to return to

the machine quickly enough to influence an operational decision. The connection therefore has to do more than exist; depending on the use case, industry may require consistent throughput, low latency, security, mobility across large production sites or differentiated levels of service.

The roundtable covered industrial applications ranging from connected equipment and fixed wireless to remote operations, robotics and low-latency use cases. The point was not that every factory suddenly needs 5G. It was that **industrial connectivity must increasingly be fit for purpose.**

This is also why the interaction between AI and advanced connectivity deserves more attention. ABI Research identifies applications including robotic operations, machine vision, digital twins, condition-based monitoring, remote operations and cloud services as part of the growing 5G-AI ecosystem in Malaysia.[1]

“As machines become more intelligent, the infrastructure connecting them becomes more consequential.”

Why dual 5G environment matters

Malaysia's dual 5G strategy is usually discussed in telecommunications terms: competition, coverage, pricing and consumer choice. There is another dimension that matters to manufacturers — optionality.

Factories and multinational investors increasingly operate inside technology ecosystems. An incoming manufacturer does not arrive with capital alone. It may already have preferred cloud environments, cybersecurity frameworks, network technologies, production platforms, chipsets, devices, regional technical partners and corporate



standards. The wider the range of legitimate technology architectures Malaysia can accommodate, the less friction there is for different investors.

ABI Research has described Malaysia's dual-network model as potentially strengthening flexibility and resilience while preserving access to both Western-aligned and China-aligned innovation ecosystems.[2] That argument deserves attention because global technology markets are becoming more fragmented. For Malaysia, maintaining different viable technology pathways can reduce excessive dependence on one ecosystem and provide investors with greater room to operate within their existing technical and regulatory requirements.

The economic value is not in having “two” for the sake of having two. It is in the options that duality keeps open.

“Technology optionality matters because investment increasingly carries a technology ecosystem with it.”

For an export-oriented manufacturing economy, that can become part of the investment proposition.

Infrastructure is only the beginning

This is where the industry discussion became much more interesting.

Malaysia can build excellent infrastructure and still have factories that struggle to use it. The constraints identified around the table were far more practical: usable industrial data, legacy machinery, OT-IT integration, talent, management capability, financing, market demand and a credible business case.

The discussion repeatedly returned to data. Many companies have machines generating information, but the information may remain isolated within equipment, manually recorded or stored in formats that are difficult to use. One industrial example discussed during the roundtable involved taking process data from a production operation and using AI analysis to identify a measurable improvement in performance. The significance was less the specific percentage achieved than how little was initially required: usable data, a clearly defined process and a problem worth solving.

That suggests a much more practical pathway for SMEs: **digitise, structure, understand, improve**. AI can come into the picture very quickly once those foundations exist. For some companies, the first transformation investment may therefore be a sophisticated industrial AI platform. For others, it may simply be getting the process data out of the machine.

Talent is the operating system

Technology becomes industrial capability through people.

One of the opening presentations at the MEIF roundtable made the point particularly well: **AI readiness is talent readiness**.

But “AI talent” should not automatically mean AI scientists. Industry needs capability at several levels. Operators and technicians need to understand connected machinery, process information and AI-assisted tools sufficiently to use them confidently in everyday work. Engineers need increasingly hybrid capability across automation, robotics, operational

technology, IT, cybersecurity and data. The critical failure point is often not within any one technology but at the interface between them.

Leadership capability matters just as much. A board does not need to write an AI model, but it does need to understand enough to ask whether the data are trustworthy, whether the use case makes economic sense, what risks are being introduced, what capability belongs inside the company and how success should be measured.

The roundtable proposed a useful progression: **AI-aware, AI-enabled and AI-productive**. At the first level, people understand what AI can and cannot do. At the second, employees can apply tools and data to improve processes. At the third, AI becomes integrated into industrial operations with cybersecurity discipline and measurable productivity outcomes.

Malaysia therefore does not simply need more people trained in AI. It needs more people able to apply AI productively inside industrial systems.

The business case still wins

Manufacturers are pragmatic. A company operating on thin margins, expensive machinery and uncertain orders does not invest simply because a technology appears in a national strategy document. It invests because something changes afterwards: less downtime, lower rejection, higher throughput, better energy efficiency, faster engineering or access to a new customer.

The roundtable included a revealing discussion about high-mix, low-volume manufacturing, where standard enterprise solutions can be expensive and poorly suited to highly customised production. In such an environment, the manufacturer may need substantial internal engineering capability and specialist software, while banks may still prefer to finance against confirmed orders rather than future transformation.

That is not resistance to technology. It is an investment problem grounded in industrial reality.





It is also why there will never be one universal “AI transformation package” for manufacturing. A semiconductor operation, a precision machining company, a food processor and an engineering job shop have different processes, margins, data environments and production economics. The right starting question therefore remains refreshingly old-fashioned: **what problem are we trying to solve?** Then choose the technology.

Better factories to better investment

This is where industrial capability becomes economically significant.

Malaysia wants higher-quality investment. But higher-quality investment requires an ecosystem capable of supporting it.

Consider two factories representing the same headline investment value. In one, the investor imports most machinery, engineering, software, integration and technical services. In the other, Malaysian companies increasingly participate in

automation, engineering, integration, maintenance, process improvement and regional supply chains.

The capital invested may look similar on paper. The domestic economic value is not.

The second investment creates technical experience, reference projects, supplier capability, skilled jobs and knowledge that can subsequently be sold elsewhere. Industrial capability compounds.

This is why connectivity, automation, AI, talent and investment policy should not be treated as separate conversations. They form part of the same system.

“Investment brings capital into an economy. Industrial capability determines how much of that value stays, grows and compounds within it.”

What should Malaysia measure next?

For years, digital progress has understandably been measured through

infrastructure metrics: coverage, speed, subscriptions and connectivity. Those remain important.

But as Malaysia enters the next stage of industrial digitalisation, the more interesting measures will increasingly be found inside enterprises. Did downtime fall? Did output improve? Did rejection fall? Did a local supplier move into higher-value work? Did an investor expand? Did an engineer acquire an integration capability that previously had to be imported? Did the company enter a new market?

That is where digital infrastructure becomes economic value.

Malaysia has already built much of the foundation. The next test is what industry does with it.

“Malaysia’s next phase of digital progress should be measured not only by how extensively the country is connected, but by what its industries are able to do because they are connected.”

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Source dialogue: MEIF Strategic Industry Roundtable, *Building AI-Ready Industrial Ecosystems: Connectivity, Capability and Trust Infrastructure*, 8 July 2026. Discussion conducted under the Chatham House Rule.

So You Automated. What Changed?



Turning technology, data, talent and supply-chain participation into industrial capability

A factory buys a new machine. The team goes for training. A dashboard is installed. Data starts flowing. Management can see more than it could before. Production is more connected, information more accessible and the operation looks decidedly more digital.

Six months later, someone asks the uncomfortable question: **What are we actually better at?**

It is a simple question, but one that increasingly sits at the heart of conversations I have been having around automation, electric vehicles, talent and industrial transformation.

We have become very good at discussing the inputs of transformation: technology adoption, capital investment, digitalisation, incentives, infrastructure and training. All are necessary. Yet between acquiring these inputs and achieving the industrial outcomes we expect from them lies a much harder challenge.

I think of it as **the conversion gap**.

Can technology become better application? Can data improve decisions? Can training become judgement on the factory floor? Can automation improve productivity, quality and resource efficiency? Can participation in a sophisticated supply chain leave an SME capable of competing for a more demanding opportunity tomorrow?

These are questions about technology, but they are also questions about systems. Ultimately, industrial transformation succeeds when investment changes what people, companies and industries are capable of doing.

Technology → Application

The first conversion happens on the factory floor.

A new CNC machine, robot, automated inspection system or digital production platform expands what a manufacturer could potentially do. The business may gain greater speed, precision, repeatability or visibility. But owning the technology and absorbing its capability are different things.

The conversion becomes visible in operations: shorter cycle times, lower scrap and rework, more consistent tolerances, earlier detection of equipment deterioration, better traceability, reduced downtime, more efficient use of materials and energy, or the ability to manufacture a component that previously sat beyond the company's technical capability.

The machine matters because of what changes around it — the process, the people, the decisions and ultimately what the business can reliably deliver.

This distinction becomes important when we talk about technology adoption at industry level. Adoption is relatively easy to observe. We can count machines purchased, systems deployed, companies receiving support and employees completing training.

Capability is harder to count.





To understand whether transformation is really occurring, we need another layer of questions. Has the process improved? Has engineering capability deepened? Can the company solve more difficult problems? Can it meet specifications it could not previously achieve? Has the investment opened access to a new customer, application or market?

A machine is an asset on the factory floor. **What the organisation learns to do with it becomes an industrial capability.**

“Technology installed is not capability acquired.”

Data → Decision Intelligence

The second conversion concerns one of industry’s fastest-growing resources: data.

Modern factories can see more of themselves than ever before. Sensors, connected machinery, ERP and manufacturing systems, machine monitoring, automated inspection, traceability platforms and increasingly AI-enabled tools can generate enormous amounts of information about what is happening across an operation.

That visibility has value. But the real return appears when information changes a decision early enough to change an outcome.

Can maintenance detect deterioration before equipment fails and production stops? Can procurement recognise a developing supply risk earlier? Can engineers trace recurring defects back to a process condition rather than repeatedly treating the symptom? Can production teams distinguish a temporary disruption from a structural bottleneck? Can management see a pattern of deteriorating performance before it appears in the monthly numbers?

These questions change the objective of digitalisation.

Instead of asking simply whether we have connected the machines or built the dashboard, we begin asking: **What decision becomes better because this information exists?**

That is the point at which data begins moving from visibility to intelligence.

It also highlights why greater automation does not remove human judgement from industrial systems. In many environments, it makes good judgement more important. Someone still has to understand context, distinguish signal from noise, recognise an anomaly worth investigating and decide what action should follow.

The most useful industrial technology therefore does more than tell us what

is happening. It improves our ability to decide what to do next.

“Visibility is not the endpoint. Decision intelligence is the outcome.”

Training → Applied Capability

Technology also exposes a third conversion gap: the distance between training and capability.

An employee attending a training programme is an important input. Certification provides evidence that particular knowledge or competencies have been taught and assessed. But the real test of capability often occurs later, somewhere much less orderly than the classroom.

A machine stops unexpectedly. A process begins drifting outside tolerance. A customer requests something the production team has never made before. Data shows an anomaly that does not fit the usual pattern.

What happens next?

Can the technician diagnose an unfamiliar problem rather than simply follow a standard troubleshooting sequence? Can the engineer adapt a process rather than only operate it? Can production teams understand what the system is telling them? Can they combine technical knowledge with experience and judgement to solve a problem they have not previously encountered?

There is another dimension that is particularly important for SMEs.

Many businesses possess far more capability than their organisational systems reveal because critical knowledge sits inside a small number of experienced people. When an unusual problem occurs, everyone knows exactly whom to call.

SPECIAL INSIGHT

That person may be exceptionally capable. The organisation, however, remains vulnerable.

If the knowledge required to keep an operation running resides primarily in one engineer, technician, founder or production manager, the company has not yet fully converted individual expertise into organisational capability. Retirement, resignation or even an inconveniently timed absence can expose the gap very quickly.

Capability becomes more durable when knowledge can move: through documentation, mentoring, standardised processes, cross-functional learning and, critically, opportunities for other people to apply what they have learned to real problems.

The objective of industrial talent development therefore extends beyond producing people who know how to operate increasingly sophisticated technology. We need people who can **think with it, adapt it and improve what happens around it**.

That is where training begins to become industrial capability.

Participation → Progression

The fourth conversion takes us beyond the individual factory and into the supply chain.

For an SME, winning a contract with a multinational, entering an EV supply chain, supplying a sophisticated manufacturer or participating in a major industrial project can be transformative. It exposes the business to new technologies, standards, specifications and expectations.

But the more important question is what remains with the company after that participation.



Has it developed stronger quality systems? Better traceability? Greater engineering competency? More disciplined production processes? Has it learned to meet more demanding sustainability or reporting requirements? Has it developed new know-how, methods or processes that can be applied elsewhere? Can it now qualify for another sophisticated customer without rebuilding its capabilities from the beginning?

This is where supply chains become much more than mechanisms for moving components from supplier to customer. At their best, they are also mechanisms through which **standards, knowledge, technology, discipline and problem-solving capability travel across an industrial ecosystem**.

That distinction matters for supplier development.

An SME may participate in an advanced industry for many years without necessarily moving very far up the value chain. The more useful measure of progression is whether increasingly demanding participation leaves the company increasingly capable.

A supplier that repeatedly learns to solve harder problems should eventually be able to pursue harder opportunities.

And that capability should travel — into another product, another customer, another sector or another market.

The Conversion System

Taken together, these four conversions reveal a broader architecture:

Technology → Application

Data → Decision Intelligence

Training → Applied Capability

Participation → Progression

At company level, they influence whether investment produces meaningful returns.

At supply-chain level, they influence whether suppliers progressively deepen their competencies or remain confined to relatively narrow roles.



At industry level, they shape productivity, innovation and competitiveness.

And at national level, they influence whether investment in technology, infrastructure, incentives and talent actually produces deeper domestic industrial capability.

This is an important distinction because an economy can contain highly advanced factories without the same depth of capability being distributed throughout its industrial ecosystem.

Technology can be imported. Machinery can be purchased. Software can be licensed.

Capability must accumulate.

It accumulates when engineers learn to solve more difficult problems; when organisations capture and institutionalise what their people learn; when demanding customers help suppliers reach higher standards; when knowledge moves between companies and institutions; and when one successful application becomes the foundation for the next.

The industrial transformation question therefore extends beyond how much technology enters an economy.

We also need to ask what the economy becomes capable of doing because that technology entered it.

What Remains After the Investment?

This brings us back to the factory and its new machine.

Six months after installation, management should certainly ask whether output has increased, costs have fallen, quality has improved, downtime has declined and the investment is delivering its expected return.

There is another question worth putting alongside those measures:

What capability exists today that did not exist before?

Perhaps the company can manufacture to a tolerance it previously could not achieve. Perhaps technicians can diagnose problems faster. Perhaps production data allows intervention before a problem becomes expensive. Perhaps knowledge once concentrated in one experienced employee has become embedded across a team. Perhaps the company can now qualify for a customer or market that was previously beyond its reach.

Or perhaps the most important capability acquired is less immediately visible: the organisation has become better at learning, adapting and solving unfamiliar problems.

That matters because today's technology will eventually become yesterday's technology. Machines will age. Software will be upgraded. AI tools will evolve. Customer requirements will become more demanding.

An organisation that merely learns to operate today's technology will eventually need to catch up again.

An organisation that becomes better at **absorbing technology, applying knowledge and converting experience into capability** is building something more durable.

This is why the return on industrial transformation should be measured not only through what an investment produces today, but also through what it enables the organisation to do tomorrow.

At scale, the same principle applies to an industrial ecosystem. The economies that become exceptionally good at conversion

— turning technology into application, information into better decisions, training into judgement, and participation into deeper capability — build an advantage that compounds.

So perhaps six months after the new machine arrives, the most revealing question remains the simplest:

“What are we now capable of?”

About Prof. Datin Lorela Chia



Prof. Datin Lorela Chia is a strategic ecosystem architect working across sustainable leadership, industrial transformation and sustainable supply chains. She is Founding President of the Malaysia Association of Sustainable Supply Chain & Innovation (MASSCI) and Vice President I (Strategy & Ecosystems) of the Machinery & Engineering Industries Federation (MEIF). Her work focuses on building the capabilities, connections and ecosystems that enable industries and enterprises to create long-term value.

Her work is anchored by a recurring question: **how do we create the conditions for capability, opportunity and value to move?** This thinking underpins her work across industrial ecosystems, sustainability, innovation, human potential and the design of platforms that bring people and ideas together — **making rooms matter.**

Factories Are Returning. Workers Are Not.

For much of the past three decades, conventional wisdom held that the United States had entered a post-industrial age.

Factories would gradually move abroad, manufacturing would occupy a smaller share of the economy, and America's future would be built upon services, finance, technology and innovation.

Recent developments suggest that this assumption may no longer be entirely accurate.

According to data from the United States Census Bureau, manufacturing construction spending has more than doubled compared with pre-pandemic levels, driven largely by investments in semiconductors, batteries and advanced manufacturing.

New industrial facilities are being built across the country, while billions of dollars are flowing into strategic sectors considered critical to national competitiveness and economic security.

At first glance, this appears to vindicate those who have long argued for a stronger industrial base.

President Donald Trump has made manufacturing revival a central pillar of his political and economic agenda. Yet it is important to recognise that this story is not entirely Trump's story.

While President Trump has made reindustrialisation a central political objective, many of the forces driving



For much of the past three decades, conventional wisdom held that the United States had entered a post-industrial age. - Reuters pic

current manufacturing expansion, including the CHIPS and Science Act, supply chain restructuring following the pandemic, and strategic competition between the United States and China, predate his return to office.

The resurgence of manufacturing reflects a broader structural shift that spans multiple administrations and enjoys support across much of the American political spectrum.

Nevertheless, a closer examination reveals a paradox. American manufacturing is returning. Manufacturing jobs are not. This distinction may prove to be one of the defining economic realities of our era.

The Paradox of Industrial Success

Historically, industrialisation and employment growth moved together. The great manufacturing centres of Detroit, Pittsburgh, Cleveland and Milwaukee became engines of prosperity because factories created large numbers of middle-class jobs.

Industrial expansion translated directly into employment opportunities, rising wages and social mobility.

Today's manufacturing economy operates very differently. The industries driving America's industrial revival are not textile mills, automobile assembly lines or consumer goods factories.

They are semiconductor fabrication plants, advanced aerospace facilities, precision machinery producers and highly specialised electronics manufacturers.

These sectors generate enormous economic value. They produce sophisticated products that command high margins and strengthen national competitiveness.



However, they also require far fewer workers than traditional manufacturing industries.

A modern semiconductor fabrication facility may cost tens of billions of dollars to construct, yet employ only a few thousand highly skilled engineers, technicians and specialists.

Advanced production increasingly relies on automation, robotics, artificial intelligence and precision machinery. The result is a manufacturing sector capable of producing more output while employing fewer people.

This is not necessarily a sign of economic weakness. On the contrary, it reflects the increasing sophistication of modern industry.

The challenge lies elsewhere. Political expectations often remain rooted in the industrial economy of the twentieth century, while economic reality increasingly reflects the technological economy of the twenty first.

Beyond Tariffs: The Real Drivers of Reindustrialisation

Public debates frequently focus on tariffs as the principal instrument of industrial revival.

Tariffs undoubtedly matter. They can encourage domestic production, reduce import dependence and provide temporary protection for strategic sectors. However, the deeper forces shaping American manufacturing extend far beyond trade policy.

The most significant driver is geopolitics. The strategic competition between the United States and China has fundamentally altered the way policymakers view industrial capacity.

Semiconductors are no longer merely commercial products. They are strategic assets. Supply chains are no longer simply economic networks.

They are increasingly viewed through the lens of national security.



This explains why governments are willing to support industries that may not always maximise short term economic efficiency.

Resilience, security and technological sovereignty have become policy objectives in their own right.

The revival of American manufacturing is therefore not merely an economic story. It is also a story about statecraft.

Washington's objective is not simply to produce more goods. It is to ensure that critical technologies, strategic industries and key supply chains remain under trusted jurisdictions.



In this context, industrial policy represents a response to a changing geopolitical landscape as much as it does an economic strategy.

Why This Matters for Malaysia

The American experience offers an important lesson for countries seeking to strengthen their own industrial sectors.

Industrial policy should not be measured solely by the number of factories built or the value of investment announcements. Equally important are questions of productivity, innovation, technological capability and workforce preparedness.

Malaysia faces a similar challenge. The National Semiconductor Strategy and the expansion of advanced manufacturing promise substantial investment and technological upgrading.

Yet policymakers must recognise that 21st century industrialisation is increasingly capital intensive.

The key measure of success is not merely investment value, but whether productivity, wages, technological capabilities and local supply chains advance alongside it.

The objective should not simply be more industry. The objective should be better industry.

The future belongs not to those who produce the most goods, but to those who create the greatest value.

The Real Test of Industrial Strategy

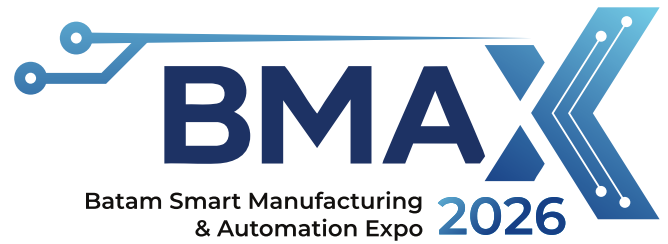
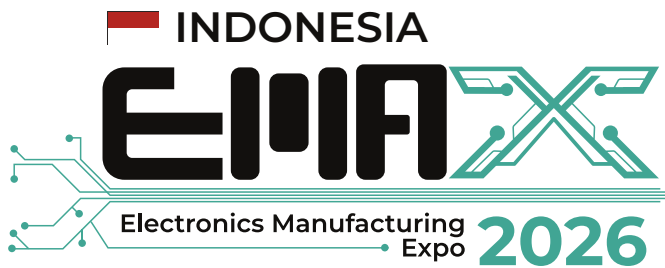
The question confronting the United States is therefore not whether manufacturing can return. It already is.

The more important question is whether the benefits of this new industrial economy can be distributed broadly enough to sustain social cohesion and political legitimacy.

The factories of the future may be filled with robots, algorithms and highly skilled engineers.

But the success of any industrial strategy will ultimately be judged not by machines alone, but by whether citizens believe they have a meaningful stake in the prosperity those machines create.

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Johor Industrial Fair 2026 Marks a Successful Edition with 200+ Exhibiting Brands and 5,000+ Industry Visitors

Johor Industrial Fair (JIF) 2026 concluded on a strong note after three dynamic days from 19–21 August 2026 at the Austin International Convention Centre (AICC), Johor Bahru, bringing together the manufacturing and industrial community for one of the region's key industry gatherings.

This year's edition recorded an impressive **200+ exhibiting brands and more than 5,000 industry visitors**, reflecting the growing interest in Johor's manufacturing sector and the demand for a dedicated platform connecting manufacturers with technology, solutions and expertise.

Under the theme **“Advancing Johor Manufacturing – Next-Gen Ready: From Current Challenges to Future Readiness,”** the exhibition floor brought together a broad spectrum of technologies and solutions covering industrial automation,



robotics, electronics, engineering, smart manufacturing, digitalisation and other areas supporting modern factory operations. Live technology showcases and direct interaction with solution providers gave visitors the opportunity to discover practical solutions relevant to their operations and future expansion.

The strong participation of exhibiting brands was a key highlight of JIF 2026. From established industry players to specialised technology providers, the diversity of brands represented at the show demonstrated the depth of the industrial ecosystem supporting Johor and the wider Malaysian manufacturing sector. Their



collective presence transformed JIF into more than an exhibition floor, creating a marketplace for new connections, technology discovery and business opportunities.

Beyond the exhibition, the **Johor Manufacturing Forum 2026** brought industry leaders, technology experts, associations and academia together across three days of discussions. The programme addressed some of the most relevant issues facing manufacturers today, including technology readiness, Industry 4.0, artificial intelligence, robotics, sustainability and the practical journey towards becoming more competitive and future-ready.



With **200+ exhibiting brands, 5,000+ industry visitors and three days of business and technology engagement**, JIF 2026 has set the momentum for an even stronger edition ahead. The success of this year's event reflects not only Johor's continued growth as a major manufacturing hub, but also the industry's demand for a dedicated platform where manufacturers, technology providers and decision-makers can connect, exchange ideas and explore new opportunities.

The momentum continues in 2027.

Johor Industrial Fair will return from **24-26 August 2027 at the Austin International Convention Centre (AICC), Johor Bahru**, bringing the manufacturing community together once again for three days of technology discovery, business connections and industry collaboration.

**JOHOR INDUSTRIAL FAIR 2027
24-26 AUGUST 2027**

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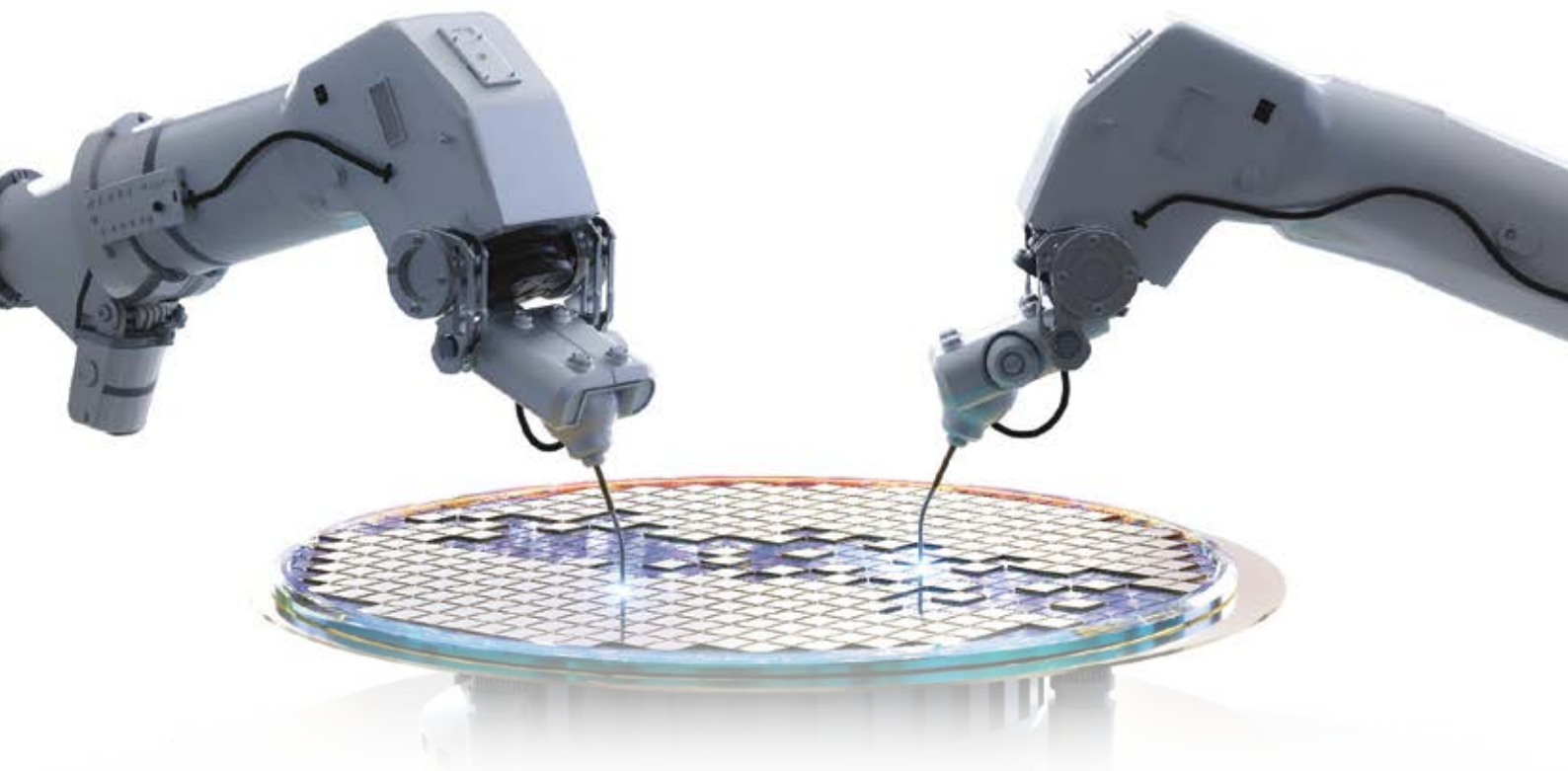


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