



Manufacturing in Asia Pacific: AI, Resilience & Industrial Competitiveness

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Manufacturing remains a cornerstone of Asia Pacific's economy, underpinning employment, exports, innovation, and competitiveness across some of the world's largest industrial markets.

As AI, automation, and digital infrastructure converge with geopolitical, workforce, and supply chain pressures, governments and manufacturers are rethinking how industrial value is created, driving a new wave of investment in more connected, intelligent, and resilient manufacturing ecosystems.



Manufacturing is becoming a national strategic asset

Manufacturing is evolving from an operational sector into a strategic capability linked to competitiveness, resilience, and sovereignty.



China

National AI-manufacturing plan

focused on industrial AI models, datasets, and factory-scale deployment



South Korea

M.AX Alliance aligns government, industry, and technology leaders

around manufacturing AI



India

Semiconductor Mission

2.0 expands from fabrication to a full-stack ecosystem strategy



Singapore

Advanced manufacturing designated as a national AI priority

under the National AI Council

Cost Reduction & Productivity Drive AI Investment

Despite the strategic narrative, AI investment decisions remain anchored in operational and financial value.

TOP BUSINESS OUTCOMES EXPECTED FROM AI INVESTMENTS IN ASIA PACIFIC MANUFACTURING



54%

Cost reduction



45%

Increased employee
productivity



43%

Product improvements
for customers



41%

Revenue growth

Source: Ecosystem, 2026

Digital factories are transforming into AI-native, self-optimising operations

Manufacturing is shifting from digitised operations to systems that can continuously optimise and adapt. The role of AI is expanding from automation to real-time operational decision-making.

SAMSUNG

AI-driven process optimisation, quality management, and equipment intelligence across factory operations

CHINA

Highly automated "dark factories" using extensive automation to reduce reliance on manual operations

MIDEA

Agentic factories using AI to coordinate workflows across global manufacturing operations

Workflow transformation is becoming the primary source of value

The greatest gains are increasingly coming from connecting workflows rather than optimising individual processes. AI is becoming the coordination layer linking planning, production, logistics, and supply chain operations.

Unilever. [Digital twins improving production decisions](#) across global manufacturing networks

LG Energy Solution. [Digital twin factories reducing ramp-up times](#) for new production lines

Coca-Cola Singapore. [AI scheduling reducing production planning cycles](#) to under one hour

Mankind Pharma. [AI-led supply chain creating unified decision system](#) across 30 factories, 50 distribution centres

Skills & infrastructure scalability are becoming critical constraints

As AI adoption expands, execution challenges are becoming more visible. This is largely because the priority is now operationalising AI — not just finding use cases.

BIGGEST BARRIERS TO AI ADOPTION IN ASIA PACIFIC MANUFACTURING

55%

Lack of in-house expertise for managing AI complexity

54%

Managing high capital and operational costs of AI projects

46%

Difficulty scaling infrastructure quickly enough to meet growing AI demands

Source: Ecosystem, 2026

The foundation is shifting to connected, data-rich, ecosystem-enabled manufacturing

Manufacturing intelligence is becoming distributed across ecosystems rather than confined within individual plants.

HYUNDAI. 5G-enabled smart factory supporting real-time coordination between robots and production systems

SCHNEIDER ELECTRIC. Smart power infrastructure improving efficiency, uptime, and sustainability across manufacturing sites

ZEBRA TECHNOLOGIES. Modular digitisation platforms helping MSMEs participate in connected industrial ecosystems



Ecosystm Opinion

Manufacturing's next challenge is not deploying more AI, but managing the complexity of increasingly connected operations, supply chains, and industrial ecosystems. As intelligence becomes embedded across these environments, competitive advantage will depend on the ability to coordinate decisions across workflows and networks rather than optimise individual processes in isolation.

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