TOP
TECH
TRENDS
2023

ASEAN, ANZ, South Korea (ASEANZK)

IBM

Executive Summary

As markets begin to open, a fresh tech rainbow is rising across Asia. Artificial Intelligence (AI), automation, hybrid cloud, and other digital technologies are helping organizations across ASEAN, South Korea, Australia, and New Zealand, realize value from data, drive intelligent workflows, and allow smarter decision-making.

In 2022, AI adoption continued at a stable pace, with 24% of companies in Australia, 39% in Singapore, and 22% in South Korea developing or deploying AI. About 94% of IT professionals in Singapore, 93% in Australia and 88% in South Korea saw the importance of building and running AI projects wherever the data resides, with most reporting that trust and explainability in AI are important to their business, as per a recent IBM global AI adoption survey.

Take ASEAN for example. Its member states are on the cusp of a tremendous leap forward in socio-economic progress, notes the WEF. "In the bustling cities of Jakarta, Ho Chi Minh City and Manila, green-helmeted motorbike taxi drivers whizz past warung or sari-sari stores," the WEF reported in its Insight Report in June 2020. "The presence of homegrown tech decacorns — firms like Gojek or Grab worth more than US$10 billion each — alongside thriving traditional mom-and-pop stores best illustrates South-East Asia's vibrant growth story."

The number of workers entering the workforce is insufficient to sustain the current levels of economic growth. As such, productivity leveraged from the application of technology like automation and AI is one of the ways to mitigate the crippling effects of inflation and skills shortage. "Automation is going to be an approach where organizations will take to basically drive and to be able to overcome, or at least reduce their talent gaps within their own entity," says Sandra Ng, Group Vice President and General Manager for IDC APJ Research.

Banks, retailers, and healthcare institutions are also ramping up. About 75% of healthcare providers in Asia Pacific plan to boost spending on patient-centric apps using AI. "More than 60% of healthcare institutions will prioritize intelligent workspaces," says IDC. "Two-thirds will prioritize the ethical use of AI for transparency in the next two years and 44% have committed to a digital-first strategy."

Paul Burton, IBM's General Manager for the Asia Pacific, recommends that companies and government agencies in the region focus on three key strategies — A, B, C — for 2023:

Agility & Resilience
Think holistically about your tech architecture. Use software and AI to build resilience, since changes to the environment cannot be truly anticipated.

Business Velocity
Most CEOs require increased business velocity. That's only possible with judicious deployment of AI and automation.

Cost Control
Technology is deflationary. Control inflationary pressures and costs by leveraging AI, trusted data, cybersecurity, sustainability imperatives and a digital workforce.

Five key tech trends to focus on in 2023 across ASEAN, ANZ and South Korea:

Trend 1: The Automation Imperative

Pervasive & organization-wide embedded automation is essential for success

AI is a buzzword today. Simply put, AI is about getting computer programs to perform processes that would be considered intelligent if done by humans. Businesses across the Asia-Pacific region ex-Japan will spend more than US$46.6 billion on AI solutions by 2026, up from US$20.6 billion in 2022, according to IDC estimates.

"Some AI and automation projects have not delivered up to expectations because these technologies have been predominantly applied only in silos," according to IDC. "Businesses will need to move from robotic process automation (RPA) and rule-based automation, which is normally applied to specific processes, to embedding intelligence across different processes and tasks. Tech has always been a deflator, as organizations use various technologies to drive automation, which helps reduce inflationary pressures."

IBM Instana Observability

Boost functionality and observability in your enterprise application performance monitoring (APM). Accelerate CI/CD pipelines no matter where your apps reside — on-cloud or on-prem. Combine APM with automation capabilities & distributed tracing to deploy on-prem or SaaS solutions.

Automation is becoming an imperative for businesses, says Paul Burton. "However, those entering the workforce don't have the skills to drive AI, automation, and digital transformation," he says.

"Companies need to first start with the business process and reimagine how that process could best be deployed with new technology. If they lack expertise in-house, they should partner with tech companies or authorized partners/systems integrators."

Paul Burton
GM, IBM Asia Pacific

Here are two examples of companies who deployed tech in an exemplary manner: South Korea's **Asan Medical Center** boosted operational efficiency with an AI-powered automation system to restructure complex workflows and streamline bed allocation. The system automatically assigns beds for patients up to 20 minutes faster with a zero error-rate and reduces the workload of hospital staff by three hours per day. Malaysia's **TIME dotCom**, a regional CSP (communications service provider), selected IBM's AI-powered automation software to transform delivery of new services. The CSP now deploys services with 80% less effort and requires 20x less manual involvement to maintain operations at scale, which gives the company an enormous productivity boost.

IBM Turbonomic

The only platform that provides actions you can trust to automate. You can enable the platform to act proactively on recommended resourcing decisions. Gain the value of speed, elasticity & cost savings. Mitigate performance risk. Reduce cloud waste automatically.

Trend 2: The Trusted Data Perspective

Trust in data & focus on the critical need for seamless integration

IBM's Paul Burton likens data to being the blood of the enterprise. "Blood transitions through your body, carrying rich nutrients and oxygen to your organs," he says. "Likewise, data travels across the enterprise; it carries information, which allows BUs (business units) to take decisions and run the business. Companies need a good data architecture and a sound data fabric to metabolize the data to make appropriate decisions. This is the basis of DX (digital transformation)."

No wonder spending on digital technology by Asia Pacific organizations will grow 3.5x the economy in 2023. "In the new digital business era, we expect digital technologies to represent a growing percentage of organizations' IT budget," IDC notes.

"Even with the looming recession and other potential storms of disruption, the focus on digital will drive organizations to modify business operations, and leverage as-a-service and consumption models to drive new competitive advantage in their respective markets."

Sandra Ng
IDC's Vice President and General Manager for IDC APJ Research

The concerns? One, despite companies sitting on mounds of data, lack of coordination and centralization keeps their operations and functions in silos. Two, most data is collected or processed manually. Three, data discrepancies and multiple versions of the truth are prevalent. The result: most organizations just cannot trust their data.

The solution? Invest in a sound data architecture and data collating capabilities. This will let you automate key processes, augment human intelligence, utilize predictive capabilities, and create accurate and timely forecasts, without requiring a data scientist.

Here are three examples of companies that have transcended the data barrier quite effectively: Thailand's national petroleum exploration and production company **PTTEP** collaborated with IBM Consulting to manage the data fabric as part of its DX journey. PTTEP integrates and gains insights from data sourced from multiple platforms and systems. This allows the company to accurately plan and predict equipment maintenance, and evaluate costs, OPEX and profitability of assets before drilling. South Korea's integrated parts manufacturer, **Samsung Electro-Mechanics**, and insurance firm **Hyundai Marine & Fire Insurance** deployed data fabric solutions from IBM to help them build reliable data-driven process that enhanced work efficiency and made reliable decisions.
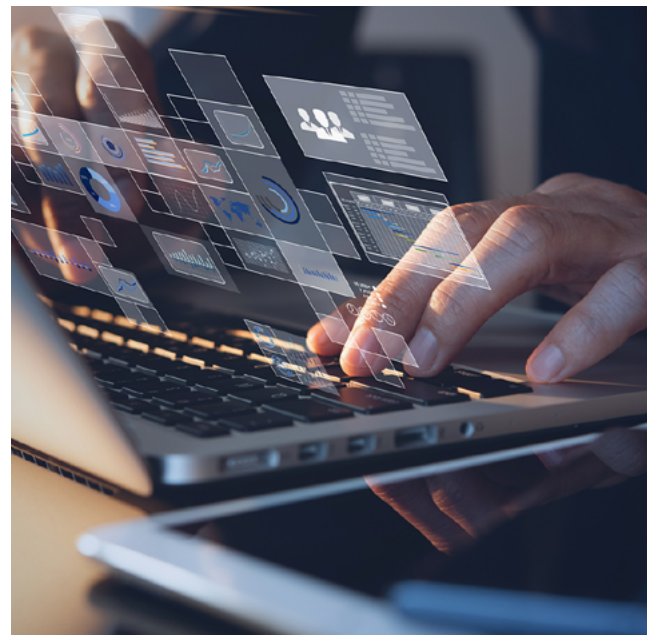
IBM Planning Analytics

This AI-infused, integrated planning solution lets you transcend the limits of manual planning. It breaks down BU siloes so you can quickly create accurate plans & forecasts for sales, supply chain, ops, etc on one platform. Pivot in real-time, accelerate decision making and drive higher performance simultaneously.

Trend 3: The Cybersecurity Conundrum

Cybersecurity must be embedded & connected across the ecosystem

Asia has become the epicenter for cybercriminals. In 2021, Asia was the worst hit region in the world with 26% of all attacks.

26% Asia
24% Europe
23% North America
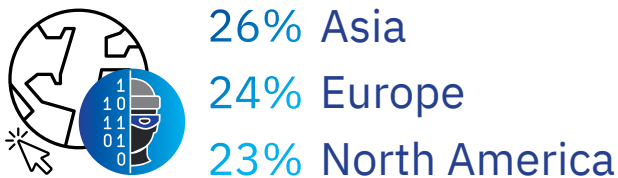
A study by IBM Security X-Force

No wonder cybersecurity is a top priority for all organizations. Businesses across Southeast Asia plan to invest US$6 billion on cybersecurity solutions by 2026 — up from US$3.2 billion in 2021, says IDC. More over, 67% of organizations in Southeast Asia are making changes to their IT strategies because of digital sovereignty concerns. IDC defines digital sovereignty as the capacity for digital self-determination by states, companies, or individuals.

IBM Security ReaQta

IBM Security ReaQta is a highly sophisticated, yet easy-to-use endpoint detection & response (EDR) solution that enables companies to protect their endpoints against zero-day threats. It uses intelligent automation, AI and ML to detect behavioral anomalies and remediate threats in near real-time.

The paradox? Specialized threat intelligence tools for each potential attack are no longer sustainable. Instead, companies need to focus on analysis intelligence. The solution? Organizations need centralized visibility and intelligent security analytics to detect, investigate and respond to critical cyberthreats.

Here are three examples: Vietnam's **Nova Group** wanted a centralized security information and event management (SIEM) solution to protect its assets from cyberattacks. It evaluated leading solutions and chose the IBM's QRadar SIEM platform. "We needed to understand how fast the Blue team can respond," Nova's CISO says. "We're pleased with the 15-30-minute range. It's just faster with QRadar." Thailand's **Cyber Elite**, an IBM Partner, deployed QRadar for security orchestration, automation and response (SOAR), SIEM and user and entity behavior analytics (UEBA) as part of its Security Operations Center (SOC) managed services offering, bringing 24/7 monitoring and real-time cybersecurity events detection to Thai organizations. **JG Summit Holdings**, a large conglomerate in the Philippines, also enhanced its cyber defense capabilities with IBM SOC.

IBM Security QRadar

Today's threat landscape demands visibility, automation and contextual insights with a robust approach. IBM Security QRadar XDR provides a single unified workflow across your tools. Save time investigating threats with AI and pre-built playbooks, automatic root-cause analysis and MITRE ATT&CK mapping. Improve the speed of investigation 60x with automated triage and contextual intelligence.

Trend 4: The Sustainability Mandate

Sustainability is rapidly becoming a business mandate everywhere

By 2050, lethal heat waves could adversely impact between 600 million and a billion people. Up to US$4.7 trillion of GDP in Asia is at risk annually from loss of outdoor working hours resulting from high heat and humidity, notes a study by McKinsey & Company.

"DCs (data centers) consume about 2% of electricity and emit 6-7% of CO2 into the atmosphere globally every year," IDC says. "Customers are asking DC users to take more responsibility and are adding emissions as part of the request for proposals." Possible solutions? Automation and cloud computing. "These would consume less energy as fewer resources will be used to produce a given level of output," Paul Burton says.

"Automation and cloud computing address the problem, both from tech and sustainability perspectives."

Paul Burton
GM, IBM Asia Pacific

The IBM LinuxONE Emperor 4, a purpose-built sustainable infrastructure solution that recently won the 2022 SEAL Sustainable Product Award, can run 25 billion secure transactions per day, cut power consumption by 75%, reduce DC floor space by 50%, and lower CO_2e footprint by 850 tons annually. Citi, for instance, uses LinuxONE globally and in the Asia Pacific to optimize DCs while lowering its overall carbon footprint. Companies face mounting pressure from regulators, investors and consumers to demonstrate progress in a verifiable way. Building good management of environmental indicators that require consolidating 500+ data types under internationally recognized ESG reporting frameworks have never been more crucial.

IBM Envizi

Accelerate sustainability by managing all your ESG (environmental, social & governance) indicators with powerful visualization & customizable dashboards on a single platform. IBM Envizi ESG Suite automates the collection & consolidation of 500+ data types, and supports internationally-recognized ESG frameworks.

Here are some examples: **Celestica**, a leader in global supply chain solutions, has aligned its corporate goals with the UN Sustainable Development Goals. "Data management and accuracy is a challenge for many sustainability managers who are accountable for internal and external reporting frameworks," the company says. "The IBM Envizi ESG suite eliminates this challenge by automating complex calculations, so organizations can focus their efforts on other activities such as target setting and other strategic priorities." Australia-based consultancy, **capioIT's** CEO Phil Hassey says: "The IBM LinuxONE offers measurable sustainability benefits that include energy use, DC footprint and end-of-use benefits for clients. This allows users to improve their sustainability report cards and continue to maintain the tech performance of their mainframe investments."

IBM Sterling

IBM Sterling Supply Chain Suite is an open, integrated platform that uses AI and blockchain for end-to-end visibility, real-time insights, and recommends actions to turn disruptions in your supply chain into viable opportunities. It connects easily to your ecosystem.

Trend 5: The Digital Workforce

Digital employees can help organizations speed up their transformation

The future of work is increasingly digital. With the infusion of AI to drive automation, there will be an accelerated adoption of intelligent digital employees to support knowledge workers. A recent McKinsey survey reported that companies have pushed the timeframe to digitize many aspects of their businesses by 3 to 4 years. The "Great Resignation", skill shortages, supply chain disruptions, working from home, touchless customer experience, and agile process redesigns are paradigm shifts that businesses have rapidly needed to adapt to. How to stay resilient and efficient? Invest in a digital employee.

What is a digital employee? They are powered by AI. They automate mundane tasks that enhance their decision-making capabilities. They can send emails, schedule meetings, filter resumes, and/or approve loans. They could serve as an interface for working seamlessly across the apps and tools that knowledge workers use daily. And the more they work, the smarter they get.

IBM Research is working to build a successful digital workforce. To achieve this optimally, IBM is creating ABPMS (augmented business process management systems) which are AI-powered, process-aware systems — that work and act on data within a set of constraints and assumptions — that companies can deploy.

IDC says that by 2024, the business developer role will become ubiquitous, with 50% of companies supporting business users to build their own apps using low-code tools. Businesses embracing codeless development and using digital employees will enhance overall operational performance and lessen their reliance on IT.

IBM Watson Assistant
Deliver intelligent customer care across all channels and touchpoints with AI. Gain an intuitive interface that lets everyone in your company build & maintain AI-based virtual agents and chatbots — without having to write a single line of code.

Some examples: Thailand-based **PTT Trading** uses IBM services to deploy AI and automation tech, including RPA to boost operations. RPA helped PTT cut billing time from 27,913 to 6,898 minutes within six weeks in the first phase. It expects net savings of THB16.6 million within three years. New Zealand-based **Ryman Healthcare** selected CorPlan and IBM Planning Analytics with Watson to help strengthen budgeting workflows, forecasting and ease process-related issues across its 36 facilities.

IBM Watson Orchestrate

Hand out tedious tasks to a personal digital worker that you can set up in minutes. Never work the same way again. Could you clear your list of repetitive tasks and get work done faster? Now you can. Meet "Digey", your own personal digital employee from Watson Orchestrate.

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- APeJ spending on AI systems.
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